

# NOVALUX

# FLOODLIGHTS

GENERAL  ELECTRIC



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\* Manufactured under Aluminum Company of America patents.

## WHAT NOVALUX MEANS TO YOU

- |   |  |
|---|--|
| <p>1. The proper type and size of floodlight for any ordinary application.</p> <p>2. High efficiency, resulting from scientific design and thorough testing.</p> <p>3. Long life and low maintenance expense, obtained through sturdy construction.</p> | <p>4. Expert assistance with application problems, a result of 25 years' experience in all phases of floodlighting.</p> <p>5. Convenient sales and service facilities.</p> <p>6. Prices equal to those of other floodlights of comparable quality.</p> |
|---|--|

General Electric also manufactures ornamental floodlights (units resembling attractive street-lighting luminaires but giving floodlight beams as well), incandescent searchlights, and underwater floodlights for fountains and swimming pools. Our nearest sales office will furnish further information upon request.

**GENERAL  ELECTRIC**

ID 90-B4172 YCF



# These Outstanding Floodlighting Installations Used G-E Novalux Service and Equipment



EBBETTS FIELD, BROOKLYN, N. Y.

This, Cleveland Municipal Stadium, and Crosley Field (Cincinnati) have General Electric equipment



NIAGARA FALLS, N. Y.

Both the American and the Canadian Falls are lighted with General Electric searchlights



MADISON SQUARE GARDEN,  
NEW YORK, N. Y.

G-E floodlights are more than equal to the needs of this arena of many activities



UNITED STATES TOBACCO CO.  
RICHMOND, VA.

A modern factory building advertises its products with G-E floodlights



THE MERCHANDISE MART,  
CHICAGO, ILL.

The world's largest permanent building-floodlighting installation



MUNICIPAL STADIUM,  
PHILADELPHIA, PA.

Floodlighting for all sports has been carefully worked out by General Electric engineers



# Floodlighting Opportunities

## Gasoline Filling Stations, Roadside Stands, Parking Lots, and Tourist Camps

These highly competitive businesses that cater to the public on the move find that their profits depend upon attractiveness of appearance which must be recognizable at a glance. Floodlighting meets the night-time requirements economically and is practically a necessity where competition is keen. A few General Electric Novalux floodlights and pump-island luminaires will help any such business.

## Office Buildings, Banks, Stores, Theaters, Factories, and Power Stations

Dignified, conspicuous advertising that draws favorable public attention is obtainable with floodlighting. It points out to great numbers of people, most of whom are at work during the day, the place of business of the better type of concern that takes pride in its building and its community. General Electric Novalux floodlights and equipment meet every requirement for attractive results.

## Monuments and Public Buildings

Statues, public buildings and places of historical interest, in which the community takes pride can be given greater prominence with floodlighting—in fact, a prominence that is even greater at night than by day. In most cases, only a few General Electric floodlights are needed to obtain this result.

## Protective Lighting and Construction Work

Night work is easier, is less costly in delays and losses, is safer under floodlighting. General Electric Novalux floodlights have many advantages over makeshift equipment—they are efficient, give proper distribution of light, are light but durable, and are inexpensive.

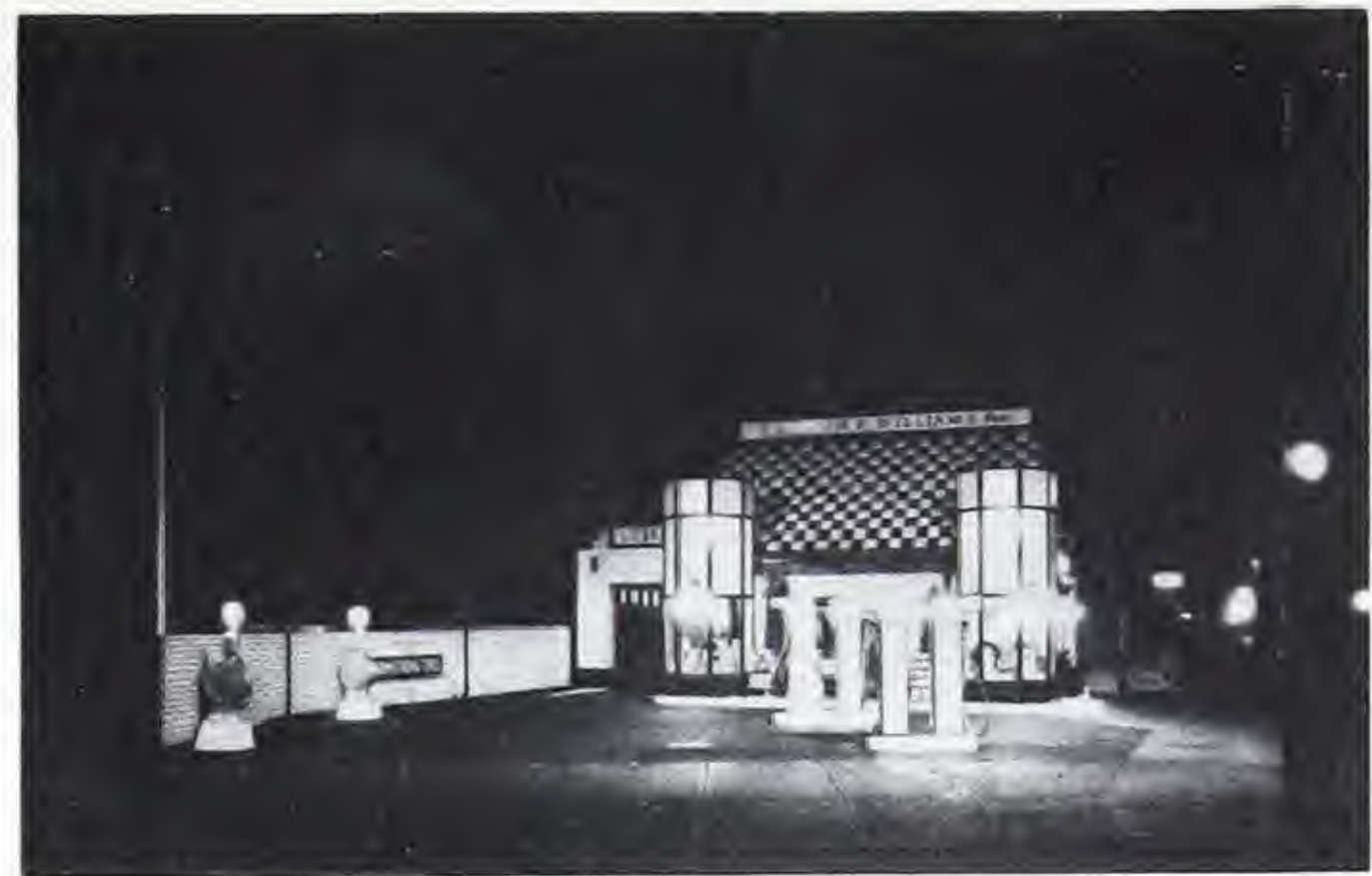
## Railroad Yards, Docks, Bridges, Aqueducts, Reservoirs, and Mines

In addition to enhancing speed and safety in handling equipment and material, floodlighting is a worthwhile protective measure against mischief-makers and thieves. In most cases, the number of floodlights required is relatively small, but they must be efficient, suitable for the service, and properly applied. General Electric Novalux floodlighting will meet these requirements.

## Baseball Fields

The survival of minor-league professional baseball through the last ten years is said to be due largely to night games—played under floodlights. It is generally agreed that night baseball is here to stay because of the greatly increased attendance and gate receipts that are obtained.

General Electric Novalux floodlights are used on three major league fields—Cincinnati, Cleveland and Brooklyn—and on about 150 other municipal and professional parks.





# Floodlighting Opportunities



## Football Fields

The popular interest in night games and the added gate receipts have been the salvation of football in many high schools and small colleges. Play under floodlights makes possible the active support of the adults of the community, as it eliminates the competition of big college games and brings in returns that most schools must have to support their entire athletic program adequately. General Electric can furnish inexpensive floodlights and practical recommendations for this type of lighting.

## Softball Fields

This tremendously popular game is gaining rapidly, an important contributing factor being the greatly increased attendance and the increased possible use of fields through floodlighting. There are cases on record where softball in towns having a population of only a few hundreds regularly draws night-game attendance of 2000 to 3000 spectators. Wherever softball is growing in popularity, General Electric Novalux floodlighting will help it grow profitably.



## Tennis Courts, Park and Playground Recreational Facilities

The value to the public of publicly-owned recreational facilities is increased through floodlighting because more people can use them. The cost of floodlighting is, in most cases, only a small fraction of the cost of providing additional facilities which, for the most part, would have little use during the working hours of the day. General Electric Novalux floodlights are easy to install in an attractive manner.



## Gun Clubs, Driving Ranges, Swimming Pools, Curling Rinks

Recreational facilities like these, operated by clubs or by small commercial enterprises, are more attractive to the users and more profitable to the operators when equipped with floodlighting. Floodlighting makes these facilities usable at more convenient hours for most people and makes it possible for more people to become interested.

## Other Applications

The above-mentioned applications are only a few of the more conspicuous of the huge number of practical floodlight uses. Wherever light can save time or make working conditions safer or more convenient; wherever it can increase business and profits by attracting favorable attention; wherever it can make sports and recreational facilities available to more people; wherever it can protect property from prowlers and thieves; wherever it can increase the pride of a community in its points of interest — wherever any or all of these conditions exist out of doors, there is likely to be a practical use for General Electric Novalux floodlights.





# General Electric Novalux Floodlights

## How to Plan Attractive, Economical Floodlighting

Floodlights are used for so many and such different purposes that it is practically out of the question to reduce floodlight application to a matter of reading a few simple tables. The average floodlighting project presents an individual illumination design problem which, for its solution, calls for some explanation of how to get good results from floodlights.

Large projects which require many kilowatts of lighting deserve careful consideration by engineers with considerable experience. Projects that involve unusual lighting effects or special installation or operating conditions likewise call for specialized experience. From our nearest branch house, you can obtain carefully planned recommendations for any project.

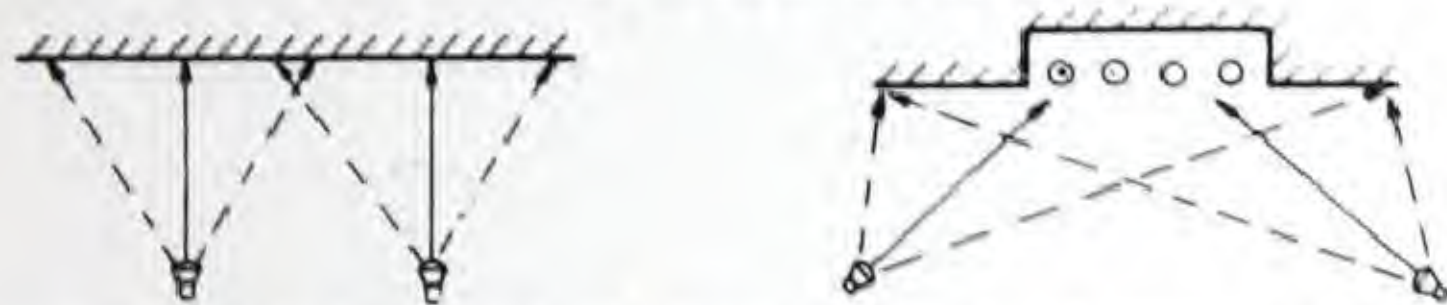
### For Attractive Lighting

#### PLAN SUBSTANTIALLY UNIFORM ILLUMINATION



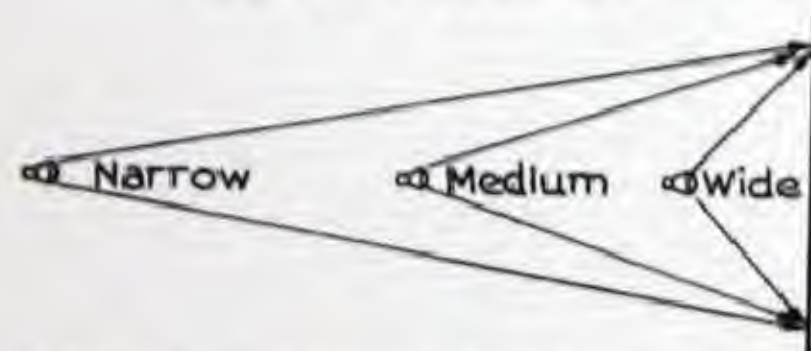
The illumination that satisfies the eye as to level and degree of uniformity is the most effective, most satisfying type for most projects.

#### CHOOSE FLOODLIGHT LOCATIONS FOR BALANCED ILLUMINATION



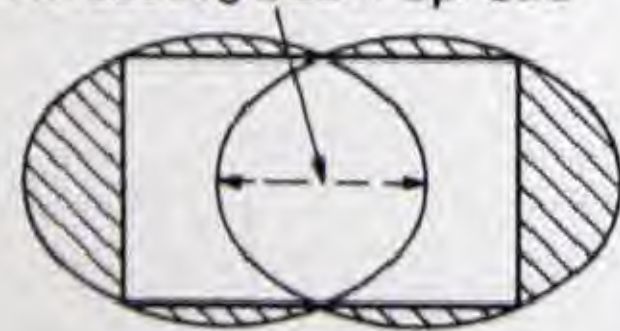
When floodlighting a flat surface, the selection of floodlight locations that provide for the projection of light beams at right angles to the surface gives best efficiency and maximum reflection of light in a useful direction. However, projection at an angle is oftentimes desirable to avoid "flatness." Where beams are to be projected at an angle, either to avoid "flatness" or because of limited choice of floodlight locations, two or more floodlight locations should be sought to prevent harsh shadows.

#### COVER THE SURFACE EFFICIENTLY



Select beam spread and lamp size to give satisfactory coverage with the smallest number of floodlights. If there is any doubt, work out several possible solutions and select the most economical.

At least  $\frac{1}{3}$  beam spread



When beams from several floodlights are used to cover an area, locate and aim the floodlights so that the beams overlap by at least one-third of their spread. The greater the overlap, the smoother the effect will be and the less serious a lamp outage will be.

### For Good Appearance and Ease of Maintenance

#### MAKE FLOODLIGHTS INCONSPICUOUS

Features of the building or grounds that permit concealment and make the floodlights relatively inaccessible to the public should be utilized. In general, the aim should be to get the best efficiency and coverage with minimum glare and, at the same time, to locate the floodlights out of reach of those who would tamper with them or damage them accidentally or maliciously. The use of steel poles designed especially for floodlighting is suggested because:

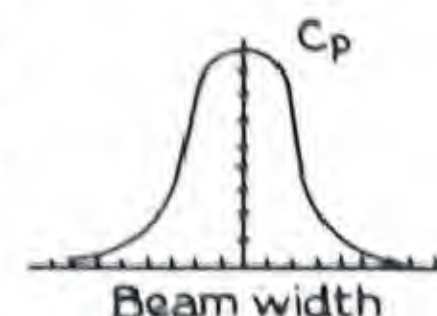
1. They may be placed at the most favorable locations for good floodlighting.
2. They are slender and thus relatively inconspicuous.

However, the average installation involving relatively few floodlights can be designed easily, simply by following the general principles and using the simplified method described below. Both principles and method are those used by experienced engineers in the solution of such problems and can be depended upon to give practical results.

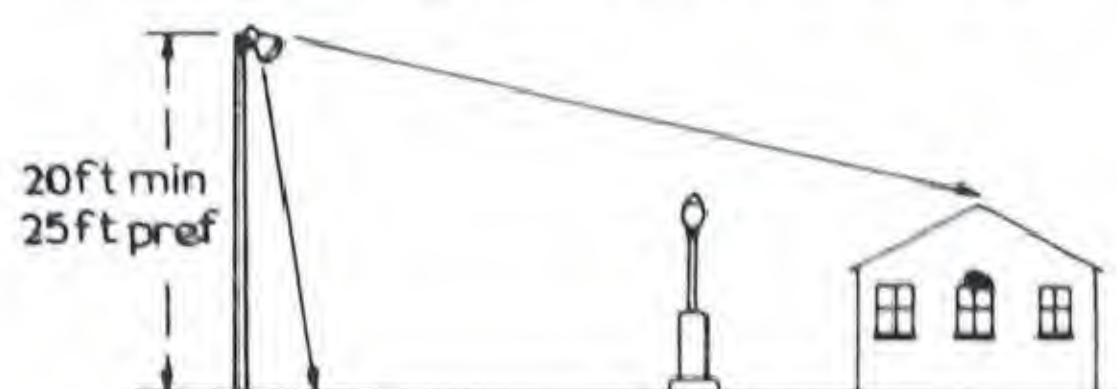
For floodlighting of outdoor sports, we recommend that prepared lighting plans which we will furnish upon request be followed as closely as possible. These convey, for most sports, the recommendations of the National Electrical Manufacturers' Association and represent the experience of the engineering staffs of the member companies.

#### AIM BEAM CENTERS TOWARD POINTS THAT NEED EMPHASIS

Use the maximum candlepower of the beam center to build up illumination on the portions of the area that are hardest to light or that need to stand out from the rest. To illustrate: the building on a filling station plot usually deserves principal emphasis, for the sake of advertising value received; therefore it is advisable to aim the beams generally toward the building.



#### AVOID OBJECTIONABLE GLARE



Glare interferes with seeing, destroys attractive appearance, and may make the installation uneconomical or introduce hazards. Therefore, avoid aiming light beams directly into people's eyes. If it is necessary to project beams against normal lines of sight, use mounting height of at least 20 ft. (and preferably 25 ft.) and aim floodlights so that spill light will not be objectionable on adjacent property or street. (Important note: In all sports floodlighting, follow the manufacturer's recommendations for mounting height and aiming.)

#### VISUALIZE COMPLETED INSTALLATION

Conditions surrounding particular projects are seldom ideal; and there is seldom only one right solution to a floodlighting problem. Therefore, it is important to try to visualize a completed installation, to decide if it will satisfy the desire for utility, eye satisfaction, and economy.

3. They are easily painted to harmonize with surroundings.
4. They are strong and durable.
5. They are relatively inexpensive.

#### KEEP IN MIND THE PROBLEMS OF RELAMPING AND CLEANING

Use a method of mounting that will support the weight of a man on a ladder; or, provide a lowering hanger or a hinged pole. Securely clamp the floodlights after adjusting, and mark the settings so that the floodlights can be re-aimed if accidentally moved.



# General Electric Novalux Floodlights

## How to Plan Attractive, Economical Floodlighting (cont.)

### For Efficient Operation

#### USE LAMPS OF CORRECT VOLTAGE RATING

The cost of lighting is generally lowest when lamps are operated at their rated voltage. The only common exception to this rule exists in sports floodlighting where, with only 300 hours or less of operation per year, the best economy results from operating lamps at about 10 per cent over rated voltage. In case of doubt as to what voltage rating to call for, consult the local central-station company.

#### PROVIDE ADEQUATE WIRING

Excessive voltage drop in wiring reduces light output immensely without appreciably reducing watts input. Wire sizes should be calculated for not more than 2 per cent voltage drop from distribution panel to lamp socket with full load burning. Our Wiring Book 82-WP gives specific recommendations for adequate wiring as well as a complete listing of wiring material. Copy available upon request.

### For Long Life and Low Maintenance Cost

#### CHECK SERVICE CONDITIONS

The floodlights listed on the pages which follow are suitable for the average outdoor operating conditions. The following special conditions may call for special equipment.

1. Adverse atmospheric conditions.  
Excessive moisture or water vapor.  
Corrosive or explosive gases.  
Excessive dirt, dust, and soot.
2. Bad temperature conditions.  
Excessively high ambient temperature.  
Sudden large changes in temperature.  
Too large lumps.
3. Severe vibration, such as encountered on heavy machinery.
4. Rough handling or flying debris.

5. High circuit voltage, in excess of 440 volts a-c. or 260 volts d-c.

Where such conditions are encountered, ask for our recommendations for your specific problem.

#### SPECIFY ENCLOSED FLOODLIGHTS

A cover glass or lens offers these advantages:

1. Better long-time efficiency of operation, by reducing the accumulation of dirt and dust on lamp and reflector surfaces.
2. Saving through easier maintenance — cleaning is easier and is required less frequently.
3. Saving through protection of lamp bulbs from cold, rain, and sleet.

## A Simple Method for Solving Problems

Recommended for simple projects requiring relatively few floodlights and involving no special illumination or installation problems; applicable only to the general-utility types of floodlights. Important note: For sports lighting, refer to lighting plans which we will furnish on request. Let our illumination engineers and lighting specialists help you with your large or special projects.

1. Select watts-per-sq-ft value.  
Refer to table on page 171.  
For applications not listed, use wattage value of some comparable listed application.
2. Multiply by area to determine total wattage.
3. Select floodlight location.
4. Divide total wattage by number of locations, to determine wattage at each location.  
Note that wattage need not be apportioned equally if some part of the area should have greater emphasis.
5. Determine beam spreads required for coverage.
6. Select type, size, and number of floodlights to give this coverage and operate this wattage.

Use nearest listed beam spread and standard lamp wattage.

7. Select beam aiming directions.  
Portions of the area that are hardest to illuminate from the locations selected, or that require special emphasis.
8. Prescribe any additional lighting recommended.  
Pump island lights? Sign lights? Decorative or ornamental entrance lights?
9. Prescribe minimum wire sizes.  
Calculate on basis of 2 per cent voltage drop from distribution panel to load; increase size thus calculated, if necessary, to comply with N.E. Code for description of permissible branch circuits.



# General Electric Novalux Floodlights

## Recommended Illumination Standards—Outdoor Floodlighting

(Approximate Average Values Representing Modern Good Practice)

### Building and Monuments

Building Surfaces	Reflection Factors Per Cent	Recommended Foot-candle levels			Recommended Watts per Square Foot		
		A	B	C	A	B	C
White terra cotta	60-80	15	10	5	2.25	1.5	0.75
Cream terra cotta							
Light marble							
Light-gray limestone	40-60	20	12	7	3.0	1.8	1.05
Bedford limestone							
Buff limestone							
Smooth buff face brick							
Briar hill sandstone	20-40	25	15	10	3.75	2.25	1.5
Smooth gray brick							
Medium-gray limestone							
Common tan brick							
Dark-field-gray brick	10-20	30	18	12	4.5	2.7	1.8
Common red brick							
Brownstone							

A — Buildings on white ways; intensive street lighting; streets with many conflicting signs and light sources; lower portions of buildings falling under Class B locations.

B — Medium-intensity white ways; secondary business streets with few conflicting signs, etc.

C — Very little conflicting light, such as on residential streets, parks, lighted highways, etc.

### Sports Applications

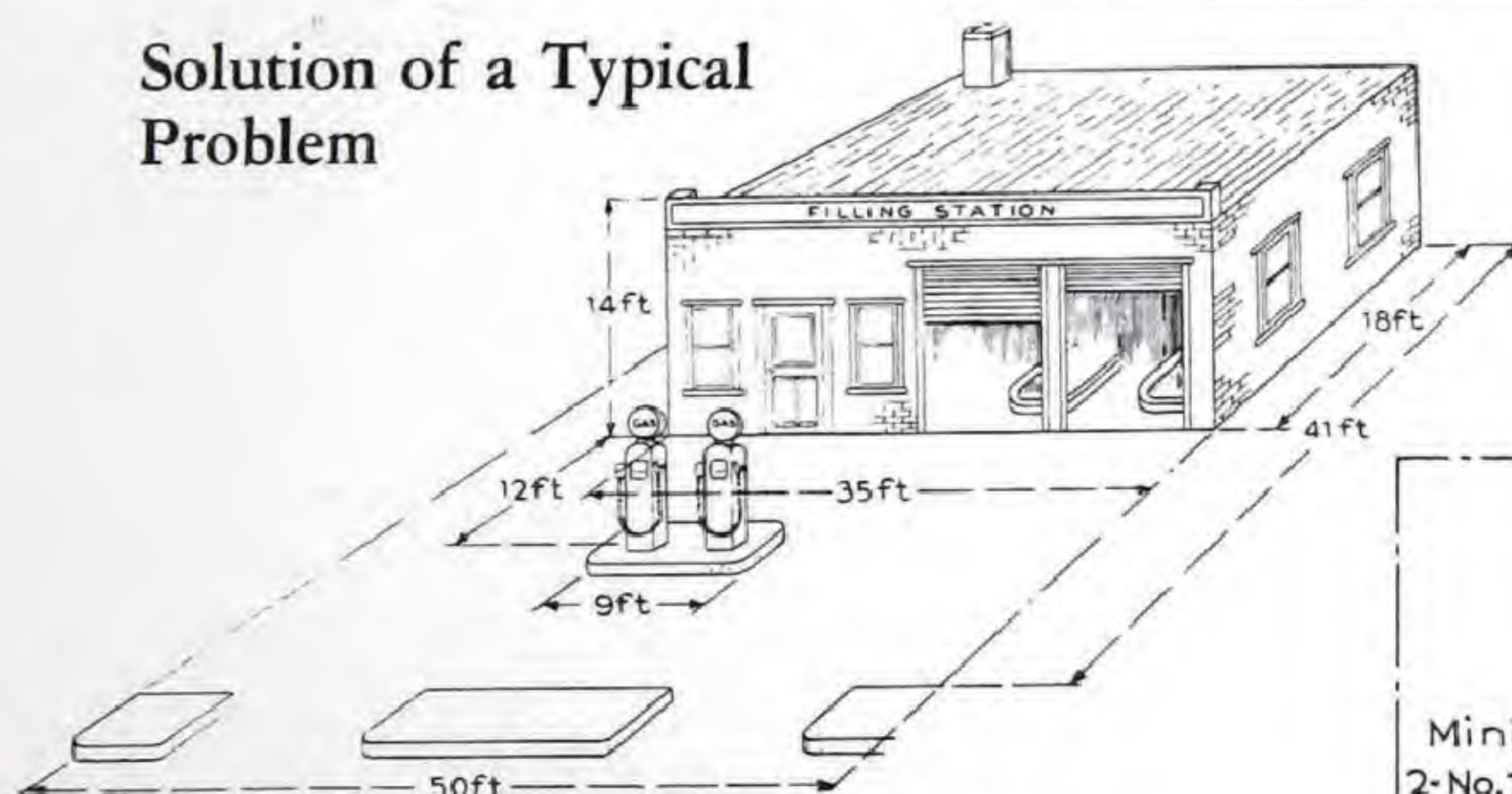
Refer to Lighting Plans, furnished on request.

\*When the building is a one-story structure occupying less than, say, one-third of the plot area, consider only the plot area in calculating total wattage. If the building is larger or higher, its requirements must be determined according to "Building and Monuments" table.

### Other Common Applications

	Recommended Foot-candle Levels	Recommended Watts per Square Foot
Automobile Parking Spaces	1	0.15
Bulletin and Poster Boards		
Bright Surroundings		
Light Surfaces	50	7.5
Dark Surfaces	100	15.0
Dark Surroundings		
Light Surfaces	20	3.0
Dark Surfaces	10-50	7.5
Church Windows (Art Glass)	20-200	3-30
Circus		
Seats	2	0.3
Arena	10	1.5
Special Attractions	50-100	7.5-15
Coal Yards — Protective	0.2	0.03
Construction and Excavation Work	5	0.75
Dredging	2	0.3
Drilling	5	0.75
Flags	30	4.5
*Gasoline Filling Stations		
Pumps	20	3.0
Yard and Driveways	5	0.75
Loading Docks and Platforms	5	0.75
Lumber Yards	1	0.15
Piers — Freight or Passenger	5	0.75
Prison Yards	5	0.75
Protective Industrial	0.2	0.03
Quarries	2	0.3
Signs (Painted)	See Bulletin Boards	
Ship Construction	5	0.75
Smoke Stacks	15	2.25
Storage Yards	1	0.15
Tourist Camps (General Area)	0.2	0.03
Used-car Lots		
Active Areas	5	0.75
Inactive Areas	1	0.15
Water Tanks	15	2.25

### Solution of a Typical Problem



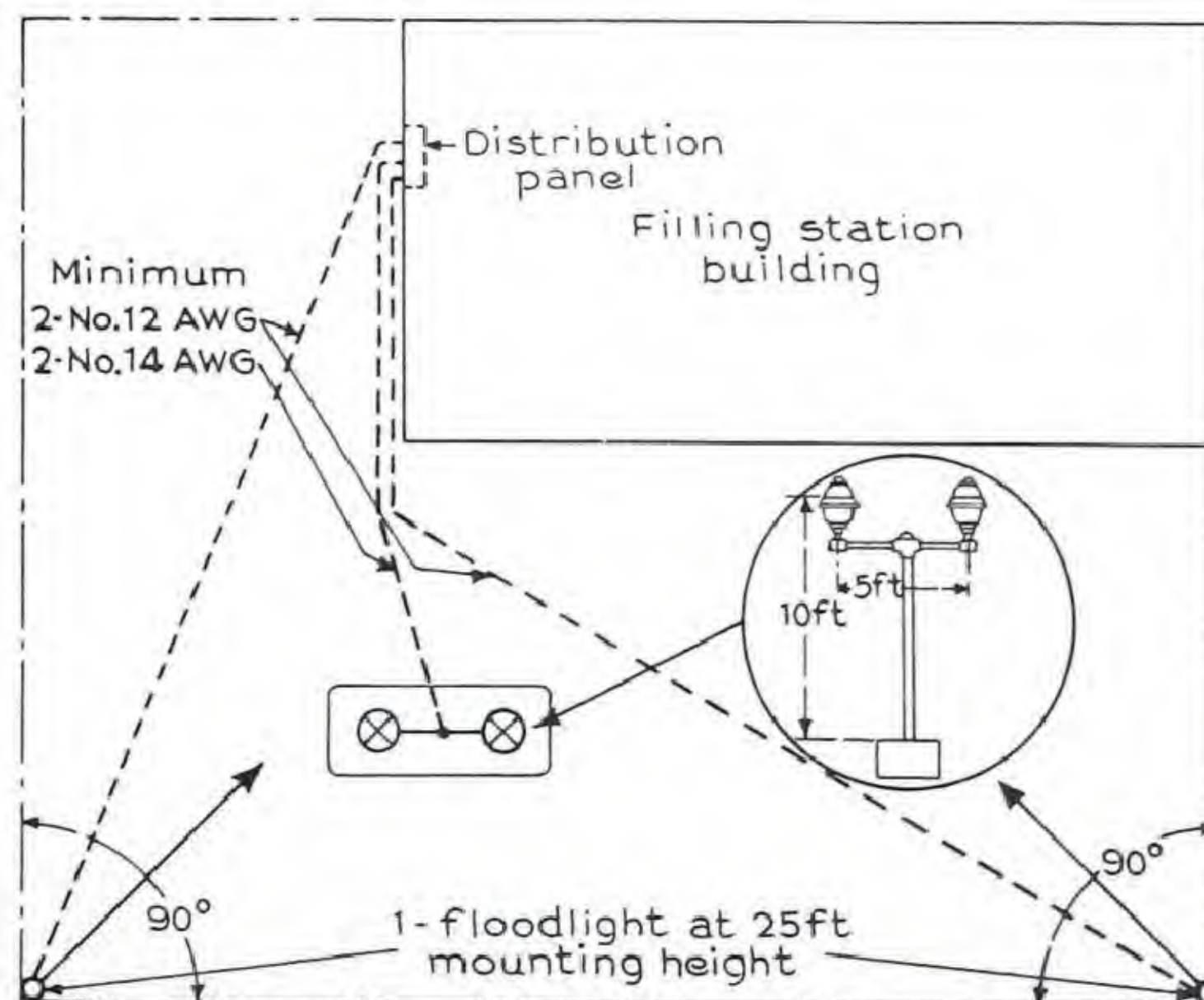
A filling station, approximately as illustrated, facing on one street in a residential district, is to be floodlighted. Initial cost is to be kept at a minimum consistent with the recommended standard of illumination.

This plot has an area of 2050 sq ft which, at 0.75 watt per sq ft, (from right-hand table above) requires 1537 watts for its general illumination. Front corner locations are considered most advantageous for the illumination of the entire plot and the side, as well as the front, of the building with the minimum of shadow. Dividing the total wattage between these two locations calls for 768 watts at each point. The necessity for lighting the grounds as well as the building calls for wide-angle floodlights of approximately 90 degrees spread. An inexpensive, very practical floodlight for this purpose is Type L-45 porcelain-enameled unit. One would be required at each location, with 750-watt lamp (the nearest standard lamp to the 768 watts calculated above.)

Because the floodlights would be in the line of sight of anyone leaving the filling station, it is recommended that they be mounted 25 ft high. The floodlight does not have a definite beam characteristic, so that aiming consists of adjusting the floodlight to keep the light on the station area as far as possible. They will be pointed generally in the direction of the front wall of the station.

The floodlighting is expected to produce an average illumination of 5 foot-candles over the area. To obtain the additional 15 foot-candles recommended for the vicinity of the pumps, it is recommended that two Form 92 pump-island luminaires be mounted at 10 ft to light center, each with a 300-watt lamp. (Refer to foot-candle distribution data on page 183.)

The broken lines on the drawing show minimum lengths of conductor run from building to base of pole. Increasing these by the distance from the panel-board to ground and by the height of the standard, it develops that the two No. 12 conductors are the minimum that should be used for each floodlight. For the pump-island units, the minimum would be two No. 14, representing the minimum permissible for 15-ampere branch circuit under the National Electrical Code.



### Equipment Required

- At each front corner:
  - One Type L-45 porcelain-enameled floodlight, Cat. No. A41G15.
  - One 750-watt, 120-volt general-service MAZDA lamp, clear bulb, mogul screw base.
  - One floodlight pole, plain embedded type, Design No. 5727.
- Pump island:
  - Two Form 92 island lights, Cat. No. A100G1.
  - Two 300-watt, 120-volt general-service MAZDA lamps, clear bulb, mogul screw base.
  - One standard (see sketch) made from 2-inch pipe and fitting.



# General Electric Novalux Floodlights

Copper-bronze Construction — Enclosed Types



Fig. 1

Type L-29 floodlight, with base and swivel-type mounting, 200/250 watts



Fig. 2

Type L-30 or L-31-F floodlight, with base and trunnion-bracket mounting, 300/500 watts



Fig. 3

Type L-31-E floodlight, with base and trunnion-bracket mounting, 750/1000 watts

These high-quality general-utility floodlights are especially recommended for applications where considerable precision of light control is wanted, or where the severity of atmospheric conditions or the nature of the project warrants the finest quality obtainable in order to obtain maximum life. These units offer a variety of beam characteristics, outstanding efficiency, and unlimited life under exposure to weather.

These floodlights normally use a high-grade silvered-glass reflector, carefully manufactured to assure high efficiency and long life.

Casings and door frames are die-formed from heavy sheet copper with riveted-on fittings. Three lever-actuated spring clamps are provided for the door on the L-29, and five on the L-30 and L-31 projectors.

Door glasses are of convex heat-resisting molded glass, furnished either plain or with light or heavy stippling or spreadlight prisms on the inner surface; and in clear, or red, amber, green, or blue color.

A porcelain-base socket is furnished, with 2-conductor cable connected and passing through a weatherproof outlet — external length, 4 ft. Focusing mechanisms are fully adjustable and externally operated.

A cast-bronze oval base with trunnion bracket or swivel, as shown, is standard. A 7-in. extension arm for the swivel (for Type L-29) is optional. Clamp, screw-on and slip-over fitters for pipe mounting are furnished in malleable or cast iron.

All copper and bronze parts are natural acid-dipped finish, protected by a coat of clear lacquer. Iron parts of pipe mountings are hot-dip galvanized.

Type of Mounting	Type L-29 200/250-watt		Type L-30 300/500-watt		Type L-31 750/1000-watt	
	Model No.	List Price	Model No.	List Price	Model No.	List Price
<b>TYPES FOR GENERAL-SERVICE LAMPS (L-29-C; L-30-E; L-31-E)</b>						
Base and swivel.....	2AL29CAC1	\$ 47.00	Not used	\$ 60.00	Not used	\$ 85.00
Base and trunnion bracket.....	Not used		2AL30EAA1		2AL31ECA1	
Clamp for 1 1/2-in. pipe.....	2AL29CAD1		2AL30EAD1		2AL31ECD1	
Slip-fitter for 1 1/2-in. pipe.....	2AL29CAW1		2AL30EAW1		2AL31ECW1	
Slip-fitter for 2-in. pipe.....	2AL29CAW2		2AL30EAW2		2AL31ECW2	
<b>TYPES FOR FLOODLIGHT-SERVICE LAMPS (L-29-D; L-30-F; L-31-F)</b>						
Base and swivel.....	2AL29DCC1	\$ 47.00	Not used	\$ 60.00	Not used	\$ 85.00
Base and trunnion bracket.....	Not used		2AL30FAA12		2AL31FAA1	
Clamp for 1 1/2-in. pipe.....	2AL29DCD1		2AL30FAD4		2AL31FAD1	
Slip-fitter for 1 1/2-in. pipe.....	2AL29DCW1		2AL30FAW4		2AL31FAW1	
Slip-fitter for 2-in. pipe.....	2AL29DCW2		2AL30FAW5		2AL31FAW2	

1. Clear door glass is included in price but not in model number. Be sure to specify one of the following types: plain, lightly stippled, heavily stippled, spreadlight, A-Sym-Etric.

2. Price addition for colored door glass, internal color plate, external light-shield visor, or internal louvers will be furnished on application.

3. Extension arm for base swivel (Type L-29) furnished at no extra charge if ordered with floodlight.

4. Clamp fitting for 2 1/2-in. to 3 1/2-in. pipes, screw-on fitting for 1 1/2-in. or 2-in. pipes, or slip fitter for 2 1/2-in. pipe furnished instead of listed fitting if desired, at same price.

5. Prices do not include MAZDA lamps.



# General Electric Novalux Floodlights

Copper-bronze Construction — Enclosed Types

## PHOTOMETRIC DATA\*

For Enclosed Floodlights with Clear Door Glass, Silvered-glass Reflector.

Type of Ø Door Glass	Beam Angle in Degrees	Factor "F"	Beam Lumens	Beam Candle- power (Avg. Max.)	Beam Angle in Degrees	Factor "F"	Beam Lumens	Beam Candle- power (Avg. Max.)	Beam Angle in Degrees	Factor "F"	Beam Lumens	Beam Candle- power (Avg. Max.)
<b>Floodlights with Gen.-serv. lamps</b>	<b>TYPE L-29-C FLOODLIGHT</b> 200-watt lamp, PS-30 cl. bulb, 6-in. L. C.				<b>TYPE L-30-E FLOODLIGHT#</b> 500-watt lamp, PS-40 cl. bulb, 7-in. L. C.				<b>TYPE L-31-E FLOODLIGHT</b> 1000-watt lamp, PS-52 cl. bulb, 9½-in. L. C.▲			
Plain	26 x 28	0.48	1560	23,400	20 x 26	0.42	4380	84,200	21 x 27	0.42	7930	136,000
Lightly stippled	38	0.69	1570	13,280	30 x 35	0.57	4370	42,100	31 x 37	0.61	8300	76,600
Heavily stippled	72	1.45	1810	4,340	64	1.25	4900	16,800	67	1.32	10,180	31,500
Spreadlight	29 x 58	0.50 x 1.10	1640	8,970	20 x 53	0.35 x 1.00	4310	33,900	21 x 53	0.37 x 1.00	8880	71,800
<b>Floodlights with Flood-serv. lamps</b>	<b>TYPE L-29-D FLOODLIGHT</b> 250-watt lamp, G-30 cl. bulb, 3-in. L. C.				<b>TYPE L-30-F FLOODLIGHT</b> L.C. 500-watt lamp, G-40 cl. bulb, 4¼-in. L.C.				<b>TYPE L-31-F FLOODLIGHT</b> 1000-watt lamp, G-40 cl. bulb, 5¼-in. L. C.			
Plain	18	0.32	1610	52,800	11 x 13	0.21	4025	264,000	12 x 14	0.23	8600	442,000
Lightly stippled	31 x 32	0.57	1630	16,000	24 x 25	0.44	3880	63,600	24 x 26	0.46	8180	125,000
Heavily stippled	68	1.35	1780	4,930	54	1.02	4290	23,800	54	1.02	8940	44,800
Spreadlight	21 x 50	0.37 x 0.93	1600	14,100	11 x 43	0.20 x 0.79	4010	59,100	13 x 44	0.23 x 0.81	8570	106,700

\*a. Approximate data for estimating. Photometric curve sheets furnished upon request.

b. Factor "F" times distance from floodlight to surface lighted, gives approximate diameter of beam pattern.

c. When equipped with polished Alzak aluminum reflector, decrease beam lumens and candlepower approximately 10 per cent.

#d. 300-watt lamp, PS-35 clear bulb, 7-in. L. C., can be used in Type L-30-E. Multiply beam lumens and candlepower by 0.57.

▲e. 750-watt lamp, PS-52 clear bulb, 9½-in. L. C., can be used in Type L-31-E. Multiply beam lumens and candlepower by 0.7.

f. When using colored door glass, multiply beam lumens and candlepower by glass transmission factor (amber 0.5; red 0.15; green 0.12; blue 0.04.) CAUTION: Maximum lamp wattage behind colored door glass: Amber, 750 watts; red, green, or blue, 500 watts. Maximum behind internal color plates: any color, 750 watts.



Base and swivel mounting  
for L-29 floodlight,  
with extension arm



Pipe-clamp fitting



Pipe-top fitting



Slip-fitter

Fittings shown are for Type L-29 floodlight and thus include swivel. Fittings for the trunnion brackets of Types L-30 and L-31 have this part omitted.

## Floodlighting Opportunities Here



BUILDINGS



CONSTRUCTION



SPORTS



FILLING STATIONS



# General Electric Novalux Floodlights

## Cast-aluminum Enclosed Type



"TYPE L-38 PORTABLE"

A compact, sturdy, and convenient floodlight for portable use. The carrying handle provides an easy means of moving the projector and of aiming the beam. Vise handles are used for both the horizontal and vertical locking bolts. The large 12" dia. galvanized steel base provides a stable mounting so that projector is difficult to tip over even under unusual conditions. 10 ft. of rubber-jacketed cord with plug are included.

This simple, sturdy floodlight has approximately the same illumination characteristics as the Type L-29 copper-encased floodlight. Having less refinement in details of construction, it is offered at a lower price.

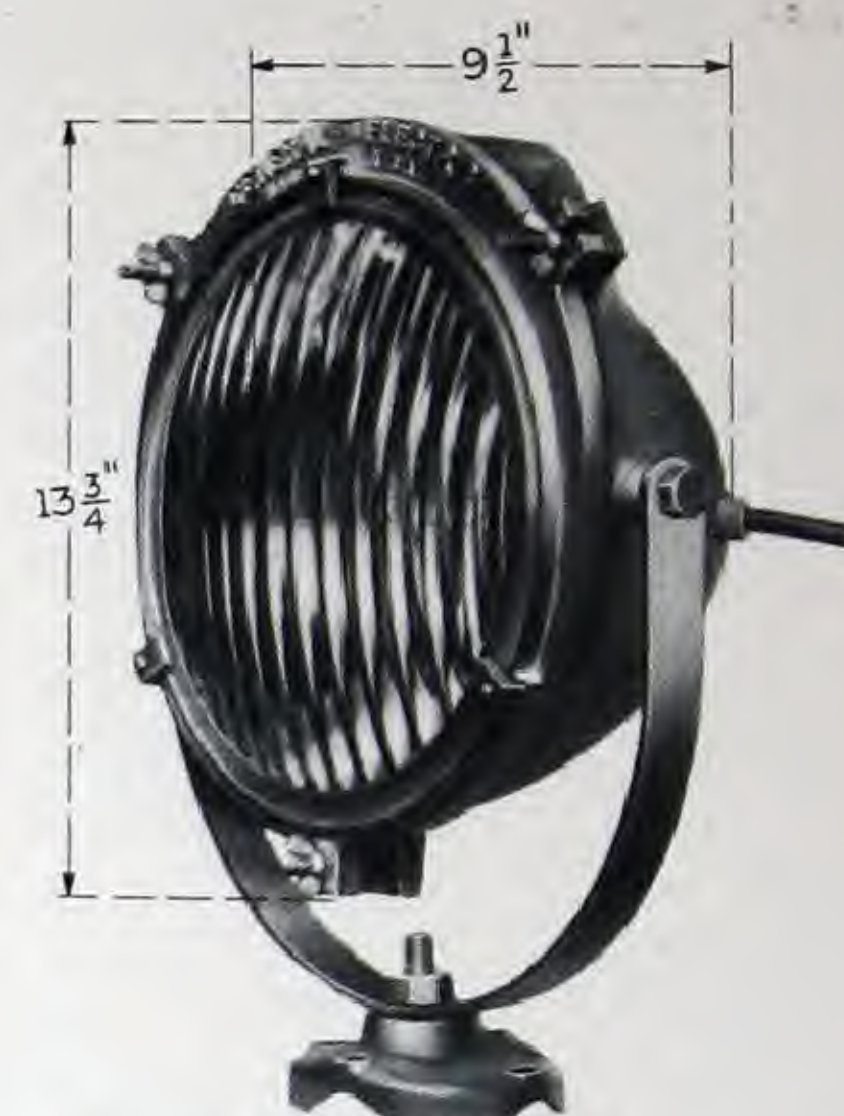
This floodlight normally uses a high-quality silvered-glass reflector, carefully manufactured to give high efficiency and long life.

The casing is one-piece cast-aluminum alloy. The cast-aluminum door frame is clamped in three points with nonferrous bolts and wing nuts, which are loosened but not removed to open the door, and one of which acts as a hinge.

Door glass is convex, heat-resisting, molded glass, furnished either plain or with light or heavy, stippling or spreadlight prisms on the inner surface. Available in clear or red, amber, green, or blue color. A porcelain-base socket is furnished with 2-conductor cable connected to it and passing through a weatherproof stuffing gland — external length of cable 4 feet. The focusing mechanism is fully adjustable and externally operated.

Oval base, or clamp, screw-on or slip-over fittings for pipe mounting are furnished in malleable or cast iron. Steel trunnion bracket.

Casing and door are natural aluminum finish. Iron and steel parts are hot-dip galvanized.



Type L-38 for gen.-serv. lamp with base and trunnion bracket. Form for floodlighting service lamp has casing inverted. 200/250 watts.

Type of Mounting	Type L-38-B, for Gen.-serv. Lamp		Type L-38-C, for Flood-serv. Lamp	
	Model No.	List Price	Model No.	List Price
Base and trunnion bracket.....	2AL38BBA2	\$38.00	2AL38CBA2	\$38.00
1 — 2-in. pipe clamp.....	2AL38BBD1		2AL38CBD1	
1 1/2-in. pipe slip-fitter.....	2AL38BBW1		2AL38CBW1	
2-in. pipe slip-fitter.....	2AL38BBW2		2AL38CBW2	
Portable Type.....			2AL38CBA13	\$45.00

1. Clear door glass is included in price but not in model number. Be sure to specify one of the following types: plain, lightly stippled, heavily stippled, spreadlight, A-Sym-Etric.

2. Price addition for colored door glass or for light shield visor furnished upon request.

3. Clamp for 2 1/2-in. to 3 1/2-in. pipe, screw-on fitting for 1 1/2-in. or 2-in. pipe, or slip-fitter for 2 1/2-in. pipe will be furnished instead of the mounting fittings listed if desired, at the same price. Illustrated on page 173.

4. Prices do not include MAZDA lamps.

## PHOTOMETRIC DATA

### For Enclosed Floodlight with Clear Door Glass and Silvered-glass Reflector

Type of Door Glass	Type L-38-B Floodlights 200-watt Gen.-serv., PS-30 Clear Bulb, 6-in. L. C. Length				Type L-38-C Floodlights 250-watt Flood-serv., G-30 Clear Bulb, 3-in. L. C. Length			
	Beam Angle Degrees V. x H.	Factor "F"	Beam Lumens	Beam Candlepower (Avg. Max.)	Beam Angle Degrees V. x H.	Factor "F"	Beam Lumens	Beam Candlepower (Avg. Max.)
Plain, clear.....	25 x 30	0.50	1420	17,085	14 x 16	0.26	1290	65,050
Lightly stippled, clear.....	38 x 40	0.71	1450	9,745	31 x 33	0.57	1390	13,300
Heavily stippled, clear.....	80	1.68	1850	3,680	65 x 69	1.32	1725	4,700
Spreadlight, clear.....	28 x 58	0.73 x 1.15	1580	9,119	18 x 52	0.32 x 0.98	1420	14,670

a. Approx data for estimating. Photometric curve sheets furnished upon request.

b. Factor "F," times distance from floodlight to surface, gives approximate diameter of beam.

c. When using polished Alzak processed reflector, decrease beam lumens and candlepower by approximately 10 per cent.

d. When using colored door glass, multiply beam lumens and candlepower by transmission factor of glass (amber 0.5, red 0.15, green 0.12, blue 0.04).



# General Electric Novalux Floodlights

## Cast-aluminum Enclosed Type

This high-quality floodlight is especially recommended where considerable precision of light control is wanted or where the severity of atmospheric conditions or the nature of the project warrants the finest quality obtainable in order to obtain maximum life. This unit provides for a variety of beam characteristics, outstanding efficiency, and unlimited life under exposure to weather.

This floodlight uses a high-grade silvered-glass reflector, carefully manufactured to assure high efficiency and long life.

The casing is one-piece cast-aluminum-silicon alloy, with cast-aluminum door frame hinged at the bottom. Both casing and door frame have machined conical bearing surfaces that make the projector weatherproof without gasketing. The door glass itself is gasketed with rubber. Four hand-operated C clamps are provided.

Door glasses are of convex heat-resisting molded glass — furnished either plain or with light stippling or spreadlight prisms on the inner surface.

A porcelain-base socket is furnished, with 2-conductor cable connected to it and passing through a weatherproof outlet — external length of cable, 4 ft. Focusing mechanism is fully adjustable and externally operated.

A heavy formed-steel trunnion bracket and cast iron crowfoot base, conforming to AREE specifications, are standard. The oval base and pipe-mounting attachments, as illustrated on page 173, are available. Horizontal and vertical repositioning stops are furnished with floodlights equipped with the railroad base.

Casing and door frame have natural aluminum finish; iron and steel parts are hot-dipped or electrogalvanized.

The standard type is intended for aiming in any direction and for normal voltage on the lamp. The sports-lighting type is arranged with the lamp socket so placed that the lamp is vertical at a 30-degree downward tilt of the floodlight. This provides for maximum lamp life at 10 per cent overvoltage on the lamp and with the projector tilted from 15 to 45 degrees below horizontal, which are characteristic of many sports applications.



L-34-E and -H floodlight for general-service lamp, with railroad crowfoot base and trunnion bracket. Form for floodlighting-service lamp has casing inverted.

1000/1500 watts.

Type of Mounting	Types L-34-E and -H, for Gen-serv. Lamp		Types L-34-F and -J, for Flood-serv. Lamp	
	Model No.	List Price	Model No.	List Price
<b>STANDARD TYPE, FOR NORMAL VOLTAGE OPERATION (L-34-E AND -F)</b>				
RR Crowfoot base and trunnion bracket.....	2AL34EFV1	\$140.00	2AL34FFV1	\$140.00
Oval base and trunnion bracket.....	2AL34EEA1	140.00	2AL34FEA1	140.00
<b>SPORTS-LIGHTING TYPE, FOR 10 PER CENT OVERVOLTAGE OPERATION AT 15 TO 45 DEG. DOWNWARD TILT (L-34-H AND -J)</b>				
RR Crowfoot base and trunnion bracket.....	2AL34HJV1	\$140.00	2AL34JFV1	\$140.00
Oval base and trunnion bracket.....		140.00		140.00

1. Clear door glass is included in price but not in model number. Be sure to specify one of the following types: plain, lightly stippled, spreadlight.

2. Price addition for light-shield visor: \$10.00 list.

3. Polished Alzak processed aluminum reflector furnished instead of silvered glass, if desired, at same price.

4. Clamps for 2½-in. to 3½-in. pipe, screw-on fitting for 1½-in. or 2-in. pipe, or slip fitter for 1½-in., 2-in. or 2½-in. pipe will be furnished instead of listed bases, if desired, at the same price. Illustrated on page 173.

5. Prices do not include MAZDA lamps.

### PHOTOMETRIC DATA

For Enclosed Floodlight with Clear Door Glass and Silvered-glass Reflector

Type of Door Glass	Types L-34-E and -H Floodlights 1500-watt Gen-Serv., PS-52, Clear Bulb, 9½-in. L.C. Length				Types L-34-F and -J Floodlights 1500-watt Flood-Serv., G-48, Clear Bulb, 5¼-in. L.C. Length			
	Beam Angle Degrees	Factor "F"	Beam Lumens	Beam Candlepower (Avg. Max.)	Beam Angle Degrees	Factor "F"	Beam Lumens	Beam Candlepower (Avg. Max.)
Plain, clear.....	21 x 26	0.40	13,640	243,000	13 x 16	0.26	11,960	560,000
Lightly stippled, clear.....	31 x 39	0.63	14,122	143,000	23 x 26	0.44	12,700	219,000
Spreadlight, clear.....	24 x 63	0.42 x 1.22	15,309	100,600	16 x 60	0.28 x 1.16	14,100	144,000

a. Approx. data for estimating. Photometric curve sheets furnished upon request.

b. Factor "F," times distance from floodlight to surface, gives approximate diameter of beam.

c. When using polished Alzak processed reflector, decrease beam lumens and candlepower by approximately 10 per cent.

d. 1000-watt lamp, PS-52 clear bulb, 9½-in. L.C., can be used in Types L-34-E and -H. Multiply beam lumens and candlepower by 0.64.

e. 1000-watt lamp, G-40, clear bulb, 5¼-in. L.C., can be used in Types L-34-F and -J. Multiply beam lumens and candlepower by 0.66.



# General Electric Novalux Floodlights

Handy Enclosed Types — For Around Farm, Home, Store, etc.

These simple, low-priced units are real floodlights, suitable for general use. The wide-beam aluminum-oxide reflector surface meets most requirements; a selection of beam angles (and longer life, of course) is obtained with Alzak processed aluminum. Suitable for portable or permanent outdoor installation; lightweight, sturdy, and durable.

## TYPE L-36

Reflectors are spun from sheet aluminum, with etched oxide surface or with polished (specular) or etched (diffuse) Alzak processed surface. Reflector rim is flanged for cover glass and equipped with gasket. The support ring is die-formed steel and the cap is aluminum. Reflector, ring, and cap are rolled together.

The porcelain-base medium screw socket is bolted to the base of the cap giving fixed focused mounting for general-service incandescent lamps. Two-conductor cable passes through rubber bushing a cap, external length 4 ft. and equipped with plug.

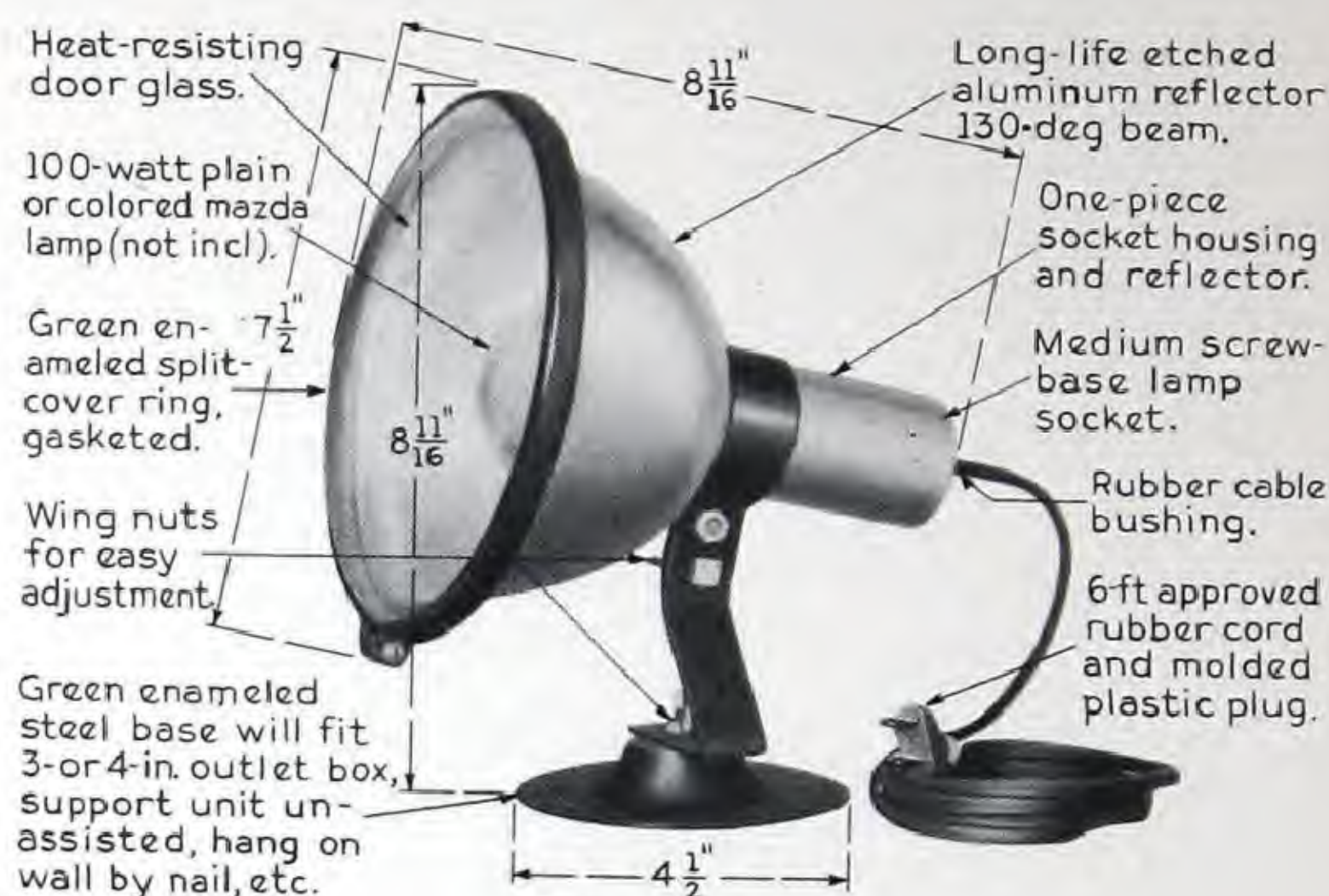
Plain clear, or colored (red, amber, green, or blue) convex cover glass attached with split aluminum ring.

Circular formed-steel base and stand as illustrated are standard. A steel spike for temporary ground installation is furnished.

All aluminum parts are natural finish; steel parts hot-dip galvanized.



Type L-36, 200 watts



TYPE L-65

Type of Mounting	Type L-65; 100-watt; with Plain Clear Cover Glass		Type L-36; 200-watt; with Plain Clear Cover Glass					
	ALUMINUM OXIDE REFLECTOR		ALUMINUM OXIDE REFLECTOR		POLISHED ALZAK PROCESSED REFLECTOR		ETCHED ALZAK PROCESSED REFLECTOR	
	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price
Circular base and stand	A168G1	\$2.95	A46G1	\$10.50	A46G2	\$14.50	A46G3	\$12.50

Plain clear cover glass is included in catalog number and price. For red, amber, green, or blue cover glass: on Type L-65, add \$0.75 list; on Type L-36, add \$4.00 list. Prices do not include MAZDA lamps.

## PHOTOMETRIC DATA\*

Lamp	Reflector Surface	Type L-35 Floodlight 100-w. Gen.-serv., A-23 I.F. Bulb, 4 3/8-in. L.C. Length				Type L-36 Floodlight 200-w. Gen.-serv., PS-30 Bulb, 6-in. L.C. Length			
		Beam Angle Degrees	Factor "F"	Beam Lumens	Beam Candlepower (Avg. Max.)	Beam Angle Degrees	Factor "F"	Beam Lumens	Beam Candlepower (Avg. Max.)
Clear.....	Polished (Alzak processed).....	.....	.....	.....	.....	36	.65	1390	13,900
Inside frosted.....	Polished (Alzak processed).....	.....	.....	.....	.....	56	1.06	1440	6,440
Clear.....	Etched (Oxide or Alzak processed).....	.....	.....	.....	.....	105	2.60	1810	1,850
Inside frosted.....	Etched (Oxide or Alzak processed).....	130	4.29	966	410	110	2.86	1830	1,620

\* For estimating. Photometric curve sheets for open or enclosed units furnished upon request. Factor "F" times distance from floodlight to surface lighted, gives approximate diameter of beam.



Mounted on Outlet Box  
←

1000 and 1  
uses around  
Farm, Home,  
Store, etc.



Mounted on Nail or Screwed to Wall  
←

Portable  
Infrequent or  
Emergency  
Use  
→





# General Electric Novalux Floodlights

Alzak-processed Aluminum, Open or Enclosed Types



Type L-43, 750/1000-watt floodlight, open, with slip-fitter mounting.

These small, attractive floodlights give good lighting at a low cost and will give maximum light output for wattage consumed and long life even under adverse conditions.

They can be provided with a variety of beam angles and mountings that make them applicable to any type of installation whether it be for parking lots, gas stations, building lighting, industrial protective and safety lighting, used car lots, and many others.



Type L-49, 300/500-watt floodlight, enclosed, with base, swivel, and stand.

## SPECIFICATIONS

- Reflectors**—Accurately formed aluminum, polished (specular), etched (diffused) surface, Alzak processed. Supporting collar "keyholed" for easy removal.
- Socket Housing**—One-piece die-cast aluminum-alloy socket support and reflector holder. Two external trunnion bosses for 240° vertical adjustment—two pairs of bosses to support socket for 7" or 9 1/2" light-center lamps—asbestos gasket between reflector and housing.
- Socket**—Heavy-duty, porcelain, mogul-screw type with wire lamp grips and flange to baffle direct radiation of lamp from connection leads. Two-screw binding posts. Fixed focus.
- Cable**—2-conductor No. 12 Awg Type PWP approved cord with treated spun-glass sleeving over the conductors inside the housing. External length of 4 ft. Waterproof

rubber-packed entrance bushing.

5. **Cover Glass**—Clear, convex, heat resistant.

6. **Cover Glass Ring**—Door glass is held to reflector by a formed split-aluminum ring. To the ends of the ring are riveted hard brass-alloy lugs, which are bolted together making a tight fit between the door and reflector.

7. **Trunnion Bracket**—Is U-shaped, sheet steel, hot-dip galvanized, degree marking lock for vertical adjustment. Has raised degree markings of 180°. Floodlight will not change position while tightening locking bolt.

8. **Finish**—Socket housing aluminum paint finish, iron and steel parts hot-dip galvanized or electro-zinc plated.

9. **Lamps**—L-43: 750/1000-watt general-service lamps PS-52, 9 1/2" light-center length. L-49: 300/500-watt general-service lamps PS-35 7" light-center length.

Type of Mounting	Type L-49 300/500 Watt						Type L-43 750/1000 Watt					
	POLISHED REFLECTOR		ETCHED REFLECTOR		Wt. in Lbs.		POLISHED REFLECTOR		ETCHED REFLECTOR		Wt. in Lbs.	
	Cat. No.	List Price	Cat. No.	List Price	Net	Ship.	Cat. No.	List Price	Cat. No.	List Price	Net	Ship.
OPEN TYPES												
Crossarm bracket.....	A44G43	\$24.00	A44G33	\$19.00	12	22	A40G63	\$28.00	A40G53	\$22.00	12 1/2	24
Oval base.....	A44G42	25.00	A44G32	20.00	12	22	A40G62	29.00	A40G52	23.00	12 1/2	24
1 — 2-in. pipe clamp.....	A44G47	25.00	A44G37	20.00	12	22	A40G67	29.00	A40G57	23.00	12 1/2	24
1 1/2-in. slip fitter.....	A44G44	26.00	A44G34	21.00	12	22	A40G64	30.00	A40G54	24.00	12 1/2	24
2-in. slip fitter.....	A44G45	26.00	A44G35	21.00	12	22	A40G65	30.00	A40G55	24.00	12 1/2	24
ENCLOSED TYPES WITH PLAIN CLEAR DOOR GLASS												
Crossarm bracket.....	A44G63	\$30.00	A44G53	\$25.00	17	28	A40G83	\$39.00	A40G73	\$33.00	18 1/2	32
Oval base.....	A44G62	31.00	A44G52	26.00	17	28	A40G82	40.00	A40G72	34.00	18 1/2	32
1 — 2-in. pipe clamp.....	A44G67	31.00	A44G57	26.00	17	28	A40G87	40.00	A40G77	34.00	18 1/2	32
1 1/2-in. slip fitter.....	A44G64	32.00	A44G54	27.00	17	28	A40G84	41.00	A40G74	35.00	18 1/2	32
2-in. slip fitter.....	A44G65	32.00	A44G55	27.00	17	28	A40G85	41.00	A40G75	35.00	18 1/2	32

1. Prices and Cat. No. do not include MAZDA lamps.

2. Resetting ring, Cat. No. 5552519, List Price \$1.00 each. Use one for vertical repositioning. With oval base and pipe clamp fittings, use one for horizontal repositioning also.

3. Complete list of available fittings.

Description	Cat. No.	List Price	Description	Cat. No.	List Price
Oval base.....	5556557G1	\$1.00	Slip fitter, 2-in. pipe.....	5556557G11	\$2.00
Clamp for 1 — 2-in. pipe.....	5556557G6	1.00	Slip fitter, 2 1/2-in. pipe.....	5556557G12	2.00
Clamp for 2 — 3 1/2-in. pipe.....	5556557G7	1.00	Pipe-top fitting, 1 1/2 — 2 in.....	5556557G8	2.00
Slip fitter, 1 1/2-in. pipe.....	5556557G10	2.00			

Add to floodlight with crossarm bracket.

4. Plain clear cover glass and ring can be supplied to convert open floodlight into enclosed type.



# General Electric Novalux Floodlights

Alzak Processed Aluminum, Open or Enclosed Types

## PHOTOMETRIC DATA\*

With General-service Incandescent Lamps

(For enclosed units, with general-service lamps. For open units, increase beam lumens and candlepower by 10 per cent.)

Lamp Bulb	Reflector Surface	Type L-49 Floodlight; 500-watt Lamp†				Type L-43 Floodlight; 1000-watt Lamp			
		Beam Angle	Factor "F"	Beam Lumens	Beam Candle-power (Avg. Max.)	Beam Angle	Factor "F"	Beam Lumens	Beam Candle-power (Avg. Max.)
Clear	Polished	26°x 26°	0.46	3115	39,000	30°x 30°	0.54	8,400	78,800
Inside-frosted	Polished	53°x 54°	1.00	3600	18,100	70°x 70°	1.40	8,250	25,660
Clear	Etched	105°x105°	2.60	5290	8,730	100°x100°	2.38	10,972	19,600
Inside-frosted	Etched	100°x105°	2.60	5240	9,180				

\* For estimating. Photometric curve sheets furnished upon request.

Factor "F," times distance from floodlight to surface lighted, gives approximate diameter of beam.

† 300-watt lamp, PS-35 bulb, 7 in. L.C. length can be used in Type L49. Multiple beam lumens and candlepower by 0.57.



Resetting ring  
Cat. No. 5552519



Slip fitter



Pipe-clamp fitting



Pipe-top fitting

## Floodlighting Opportunities Here



PLAYGROUNDS



PARKS AND GARDENS



TOURIST CAMPS



SPORTS



SIGNS



SERVICE STATIONS



# General Electric Novalux Floodlights

Spun Alzak-processed Aluminum Reflectors, Open or Enclosed

## TYPE L-68 — 1500-WATT

The Type L-68 Novalux floodlight is a low-cost sports floodlight especially designed to do an outstanding job for a baseball, football, softball, tennis, ice hockey, or any type of municipal park recreation. Although principally intended for sports, it also is readily adaptable to general utility applications.

This floodlight has been designed to meet the problems of easy and safe servicing which is one of the major factors in the sports lighting field. This is accomplished by three distinct features found in the Type L-68 floodlight — Vertical Adjustment, Slide-Type Door, Resetting Ring.

**VERTICAL ADJUSTMENT.** The 240-degree vertical adjustment or tip-over construction of the floodlight enables the operator to quickly and safely service the floodlight from behind. It is serviced from the support back of the floodlight. If floodlights cannot be tipped back so that the front will face the operator, they are both difficult and dangerous to service. With the Type L-68 floodlight, the reflector can be tipped back to a position where the whole inside of the floodlight can be safely and quickly examined and worked on.



Type L-68 — 1500-Watt

**SLIDE-TYPE DOOR.** The slide-type door glass, is as advantageous as the vertical adjustment. After floodlight is tipped back, the service man has only to unsnap one large toggle latch, which can be easily operated, even with gloves. A slight pull on the handle and the door frame will slide off, completely detaching itself from the reflector. A heavy-duty chain suspends the door frame beside the unit. Hanging in this position, the door glass is safely and conveniently out of the way where it will not be

liable to breakage from dropped tools and where it will not hinder servicing. With the ordinary rigidly-mounted floodlight, using the hinged-type of door glass, it is necessary to hold the door glass away from the reflector opening with one hand while the other hand is servicing it. The door glass is also susceptible to breakage if tools should slip or the door glass is dropped.

**RESETTING RING.** The resetting ring, is used so that the floodlight may always be returned to its original position after servicing. When the installation is adjusted, the resetting ring is fastened in place. Each time the floodlight is serviced it can be returned to its original position.

## SPECIFIC ADVANTAGES OF THE TYPE L-68 FLOODLIGHT



This floodlight was designed to meet the problems which years of experience in the sports-lighting field has revealed. One of the major problems is to provide easy and safe servicing. This is accomplished by three distinct but related features: (1) Vertical Adjustment of 240 degrees, or tip-over construction of the floodlight which enables the operator to service floodlight from behind; (2) Slide-Type Door which is easily detached and suspended beside the unit on a chain; (3) Resetting Ring which permits floodlight to be returned to its exact original position.





# General Electric Novalux Floodlights

Spun Alzak-processed Aluminum Reflectors — Open or Enclosed

TYPE L-68 — 1500-WATT

1. **Reflector**—Accurately formed aluminum, polished (specular) or etched (diffuse) surface, Alzak processed. Extruded supporting collar "key-holed" for easy removal.

2. **Socket Housing**—One-piece die-cast aluminum-alloy socket support and reflector holder—two external trunnion bosses for vertical adjustment of 240°—two bosses to attach socket for 9½-inch light-center lamp-asbestos gasket between reflector and housing.

3. **Socket**—Heavy-duty porcelain Mogul screw-type with wire lamp grips and flange to baffle direct radiation of lamp from connection leads. Two screw binding posts. Fixed focus.

4. **Cable**—2-conductor No. 12 AWG Type PWP approved cord with treated spun-glass sleeving over the conductors inside the housing. External length 4 ft. Weatherproof rubber-packed entrance bushing.

5. **Cover Glass**—Clear, convex, heat-resisting "Pyrex," 18" diameter.

6. **Cover Glass Ring**—Sliding door type — door glass mounted in split-ring aluminum frame — formed sheet-

aluminum handle and locking toggle welded to split ring. Asbestos tape gasket on inner and outer surface of inside section of the ring provides weatherproof joint between door glass and lens ring and lens ring and reflector. Hook and chain to fasten ring and reflector. Easy, safe and convenient to operate at high mounting heights.

7. **Mountings**—Crossarm mounting most common—other mountings available—crossarm base is cast-iron L-shaped, hot-dipped galvanized with raised degree markings for continuous horizontal movement of 180°, continuous slot for clamping bolt makes possible identical drilling of all crossarms.

8. **Resetting Ring**—Forms a repositioning stop on the right-hand trunnion clamp (vertical adjustment)—also applicable as a horizontal repositioning stop in connection with oval base and pipe clamp fittings.

9. **Finish**—Aluminum parts, natural finish; iron and steel parts, hot-dip galvanized or electric zinc-plated.

10. **Lamps**—750-, 1000-, or 1500-watt general-service lamps PS-52—9½-inch light-center length.

Type of Mounting	Open Types						Enclosed Types with Plain Clear Door Glass					
	POLISHED REFLECTOR		ETCHED REFLECTOR		Wt. in Lbs.		POLISHED REFLECTOR		ETCHED REFLECTOR		Wt. in Lbs.	
	Cat. No.	List Price	Cat. No.	List Price	Net	Ship.	Cat. No.	List Price	Cat. No.	List Price	Net	Ship.
Oval base.....	A52G12	\$33.00	A52G2	\$26.00	10	41	A52G32	\$48.00	A52G22	\$41.00	16	47
Cross arm.....	A52G13	32.00	A52G3	25.00	9	40	A52G33	47.00	A52G23	40.00	15	46
Slip fitter 1½ in. ....	A52G14	34.00	A52G4	27.00	14	45	A52G34	49.00	A52G24	42.00	20	51
Slip fitter 2 in. ....	A52G15	34.00	A52G5	27.00	14	45	A52G35	49.00	A52G25	42.00	20	51
Slip fitter 2½ in. ....	A52G16	34.00	A52G6	27.00	15	46	A52G36	49.00	A52G26	42.00	21	52
Pipe clamp 1-2 in. ....	A52G17	33.00	A52G7	26.00	11	42	A52G37	48.00	A52G27	41.00	16	48
Pipe clamp 2½-3½ in. ....	A52G18	33.00	A52G8	26.00	12	43	A52G38	48.00	A52G28	41.00	18	49
Pipe top 1½-2 in. ....	A52G19	34.00	A52G9	27.00	10	41	A52G39	49.00	A52G29	42.00	16	47
Pipe top 2½ in. ....	A52G20	34.00	A52G10	27.00	10	41	A52G40	49.00	A52G30	42.00	16	47

1. Prices and Cat. No. do not include MAZDA lamps.

2. For vertical repositioning one resetting ring Cat. 5552519 is furnished.

3. Plain clear cover glass and ring, to convert open floodlights to enclosed type.

Set No. 4865525G1, list \$15.00, consists of cover glass No. 5562041P1 and cover ring No. 4865525G2. (Medium stippled door glass available at same price as plain clear.)

## \*PHOTOMETRIC DATA

Reflector	Door Glass	Beam Lumens	Beam Width	Beam Factor	Av. Max. CP
Polished	None	16770	30°x33°	.56	174,500
Etched	None	19146	75°x80°	1.61	47,700
Polished	Plain clear	15680	29.5°x33°	.54	166,000
Etched	Plain clear	17590	75°x78°	1.58	43,000
Polished	Med. stippled	18190	62°x70°	1.30	48,300
Etched	Med. stippled	18090	94°x96°	2.18	26,200

\*The resistance to corrosion of Alzak-processed reflectors is a function of the thickness of the anodic coating. The heavier this coating the more resistant the surface to corrosion but also the lower is reflectivity. The experience gained from extensive field investigations has enabled General Electric Co. to compromise these two factors (resistance to corrosion and reflectivity) and obtain the maximum efficiency throughout the useful life of the floodlight.

Similarly the beam dimensions of these floodlights are the result of studies of actual installations and represent the beam characteristics required under average conditions to provide the maximum utilization of the light on the playing field in sports activities.



# General Electric Novalux Floodlights

## Porcelain-enameled Open Types

These inexpensive floodlights are used principally for lighting medium- and large-sized ground areas from poles located in or near the area. They produce a wide-angle flood of light; but for emphasizing small buildings or for greater range, auxiliary insert reflectors are available. They are efficient, sturdy, and long-lived floodlights.

Reflectors are die-formed steel in the two shapes illustrated, with glossy porcelain-enameled finish — dark green double-coated outside, white triple-coated inside. Auxiliary reflectors, when used, are polished or etched sheet Alzak processed aluminum of parabolic contour.

The reflector holder and cover are die-cast aluminum alloy, assembled with zinc-plated Everdur screws. The porcelain-enameled reflector is clamped to the holder with a galvanized steel ring, the screws for which support the auxiliary reflector is used. Keyholes in the ring provide for easy removal of reflector.

Mogul screw-base socket gives fixed-focus mounting of general-service incandescent lamps. Two-conductor cable passes through weatherproof stuffing gland, external length 4 feet.

Mounting attachments are malleable or cast iron.

Aluminum parts have natural finish, iron and steel parts hot-dipped or electrogalvanized.



Type L-45 floodlight with crossarm bracket



Type L-46 floodlight with slip-fitter mounting

Type of Mounting	Type L-45; 750/1000-1500-watt						Type L-46; 750/1000/1500-watt					
	Without Auxiliary Reflector		With Etched Auxiliary Reflector		With Polished Auxiliary Reflector		Without Auxiliary Reflector		With Etched Auxiliary Reflector		With Polished Auxiliary Reflector	
	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price
Cross arm bracket.....	A41G13	\$17.00	A41G23	\$20.00	A41G33	\$23.00	A43G13	\$28.00	A43G23	\$31.00	A43G33	\$34.00
1-2-in. pipe clamp.....	A41G17	18.00	A41G27	21.00	A41G37	24.00	A43G17	29.00	A43G27	32.00	A43G37	35.00
1 1/2-in. pipe slip fitter.....	A41G14	19.00	A41G24	22.00	A41G34	25.00	A43G14	30.00	A43G24	33.00	A43G34	36.00
2-in. pipe slip fitter.....	A41G15	19.00	A41G25	22.00	A41G35	25.00	A43G15	30.00	A43G25	33.00	A43G35	36.00

1. Use 750-w, 1000-w, or 1500-w gen-serv. lamp, PS-52 clear or I.F. bulb, 9 1/2-in. L.C. length. By changing socket position during installation, 300-w PS-35 or 500-w PS-40 7-in. L.C. lamp can be accommodated.

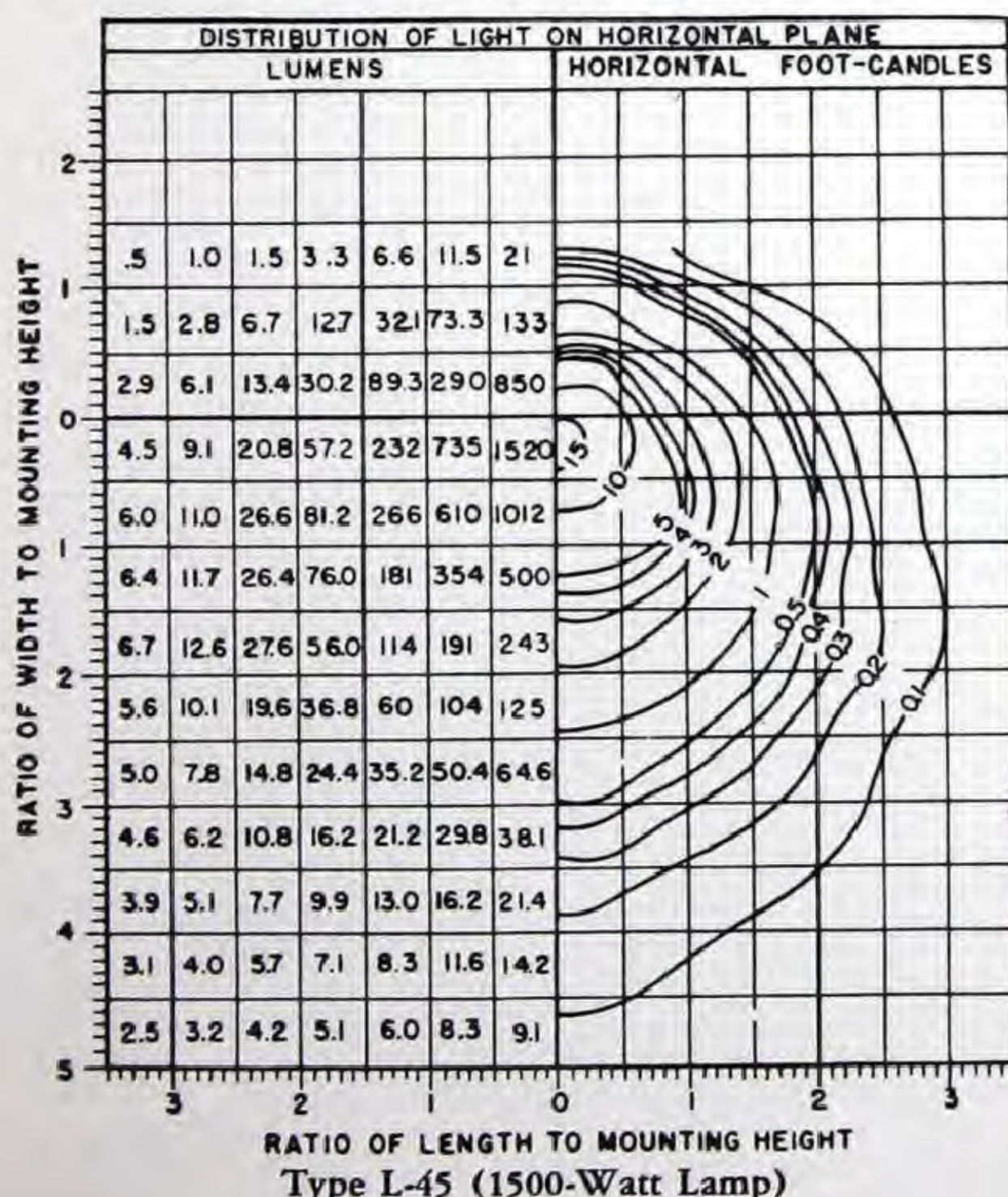
2. Resetting ring (vertical repositioning stop) Cat. No. 5552519, \$1.00 list, additional.

3. Oval base for wall mounting or clamp for two 3 1/2-in. pipe is furnished at same price as for 1-2-in. pipe clamp. Screw-on fitting for 1 1/2-in. or 2-in. pipe or slip fitter for 2 1/2-in. pipe furnished at same price as for 2-in. slip fitter.

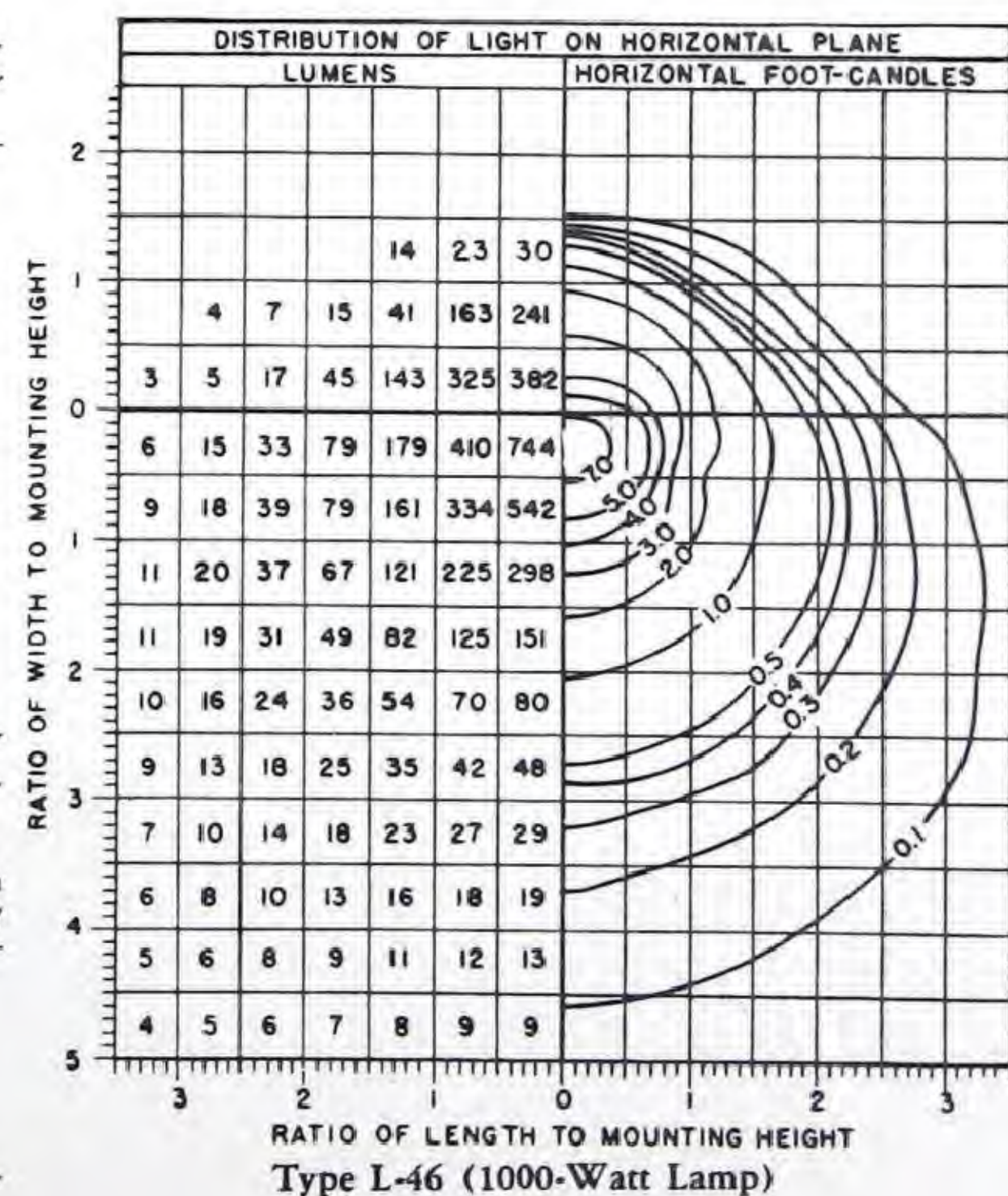
4. Prices do not include MAZDA lamps.

## PHOTOMETRIC DATA

Lumen distribution and horizontal foot-candles from one floodlight with a general-service incandescent lamp burning vertically at 20-feet height. No auxiliary reflector.



EFFECT OF HIGHER MOUNTING	
For Mounting Height of Ft.	Multiply Foot-candles by
20	1.00
21	0.91
22	0.83
23	0.76
24	0.69
25	0.64
26	0.59
27	0.55
28	0.51
29	0.48
30	0.44
35	0.33
40	0.25
EFFECT OF SMALLER LAMPS	
For Lamp Rated Watts	Multiply Lumens and Foot-candles on curve at left by
1500	1.00
1000	0.64
750	0.45
500	0.31
300	0.18





# G-E Novalux Mercury Vapor Floodlights



Type L-46

Type L-45-C; Type L-46-C—400-watt mercury. Type H-1 lamp and two 150-watt incandescent lamps.  
Type L-45-D; Type L-46-D—400-watt mercury. Type H-1 lamp.

Recommended for gasoline service stations, parking lots, used-car displays, etc. The light from a 400-Watt Type H-1 mercury lamp, rich in blue and green, is combined with the light from incandescent lamps, which is red and yellow to produce a brilliant, attractive, unusual quality of illumination. These floodlights are inexpensive, efficient, and long lived.



Type L-45

## MERCURY INCANDESCENT TYPE L-45C

	High Power-factor					Normal Power-factor				
	FLOODLIGHT AND BALLAST UNIT			BALLAST UNIT ONLY		FLOODLIGHT AND TRANSFORMER			TRANSFORMER ONLY	
	Cat. No.	List Price	Net Wt.	Cat. No.	List Price	Cat. No.	List Price	Net Wt.	Cat. No.	List Price
1½-in. pipe slip fitter	A161G32	\$59.00	43	5556759G1	\$38.00	A161G41	\$53.00	46	5556759G5	\$32.00
2-in. pipe slip fitter	A161G33	59.00	43	5556759G2	38.00	A161G42	53.00	46	5556759G6	32.00
2½-in. pipe slip fitter	A161G34	59.00	43	5556759G3	38.00	A161G43	53.00	46	5556759G7	32.00
TYPE L-46-C										
1½-in. pipe slip fitter	A162G32	\$70.00	47	5556759G1	\$38.00	A162G41	\$64.00	50	5556759G5	\$32.00
2-in. pipe slip fitter	A162G33	70.00	47	5556759G2	38.00	A162G42	64.00	50	5556759G6	32.00
2½-in. pipe slip fitter	A162G34	70.00	47	5556759G3	38.00	A162G43	64.00	50	5556759G7	32.00
MERCURY ONLY (NO INCANDESCENT)										
TYPE L-45-D										
1½-in. pipe slip fitter	A161G37	\$51.00	42	5556759G1	\$38.00	A161G44	\$47.00	45	5556759G5	\$32.00
2-in. pipe slip fitter	A161G38	51.00	42	5556759G2	38.00	A161G45	47.00	45	5556759G6	32.00
2½-in. pipe slip fitter	A161G39	51.00	42	5556759G3	38.00	A161G46	47.00	45	5556759G7	32.00
TYPE L-46-D										
1½-in. pipe slip fitter	A162G37	\$64.00	46	5556759G1	\$38.00	A162G44	\$58.00	49	5556759G5	\$32.00
2-in. pipe slip fitter	A162G38	64.00	46	5556759G2	38.00	A162G45	58.00	49	5556759G6	32.00
2½-in. pipe slip fitter	A162G39	64.00	46	5556759G3	38.00	A162G46	58.00	49	5556759G7	32.00

- Prices and catalog numbers do not include lamps.
- Floodlights only (with 4-foot cord) for use with standard mounting and separate ballast or transformer unit.

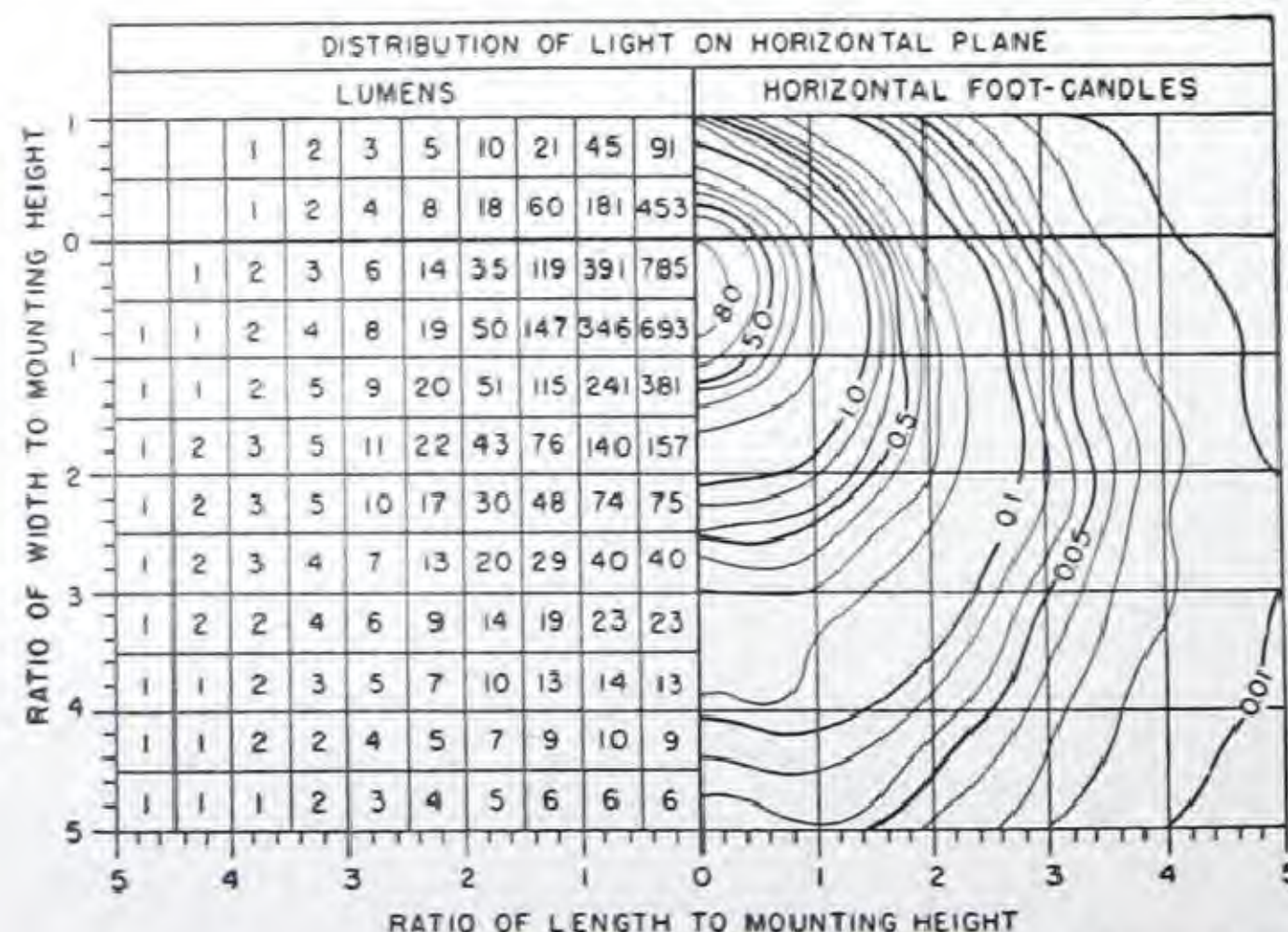
Floodlight Only (Less Mounting Transformer)			Mountings for Use with Floodlights					
Type	Cat. No.	List Price	Type	Cat. No.	List Price	Type	Cat. No.	List Price
L-45C	A161G35	\$21.00	Slip fitter 1½-in.	5556557G3	\$4.00	Cross arm bracket	5556557G2	\$2.00
L-45D	A161G40	15.00	Slip fitter 2-in.	5556557G4	4.00	Oval base	5556557G1	3.00
L-46C	A162G35	32.00	Slip fitter 2½-in.	5556557G5	4.00	Clamp for 1 — 2-in. pipe	5556557G6	3.00
L-46D	A162G40	26.00				Pipe top 1½-in. — 2-in.	5556557G8	4.00

Note: Standard L-45 and L-46 units should not be used with mercury lamps. Information on transformers to operate these floodlights will be furnished upon request.

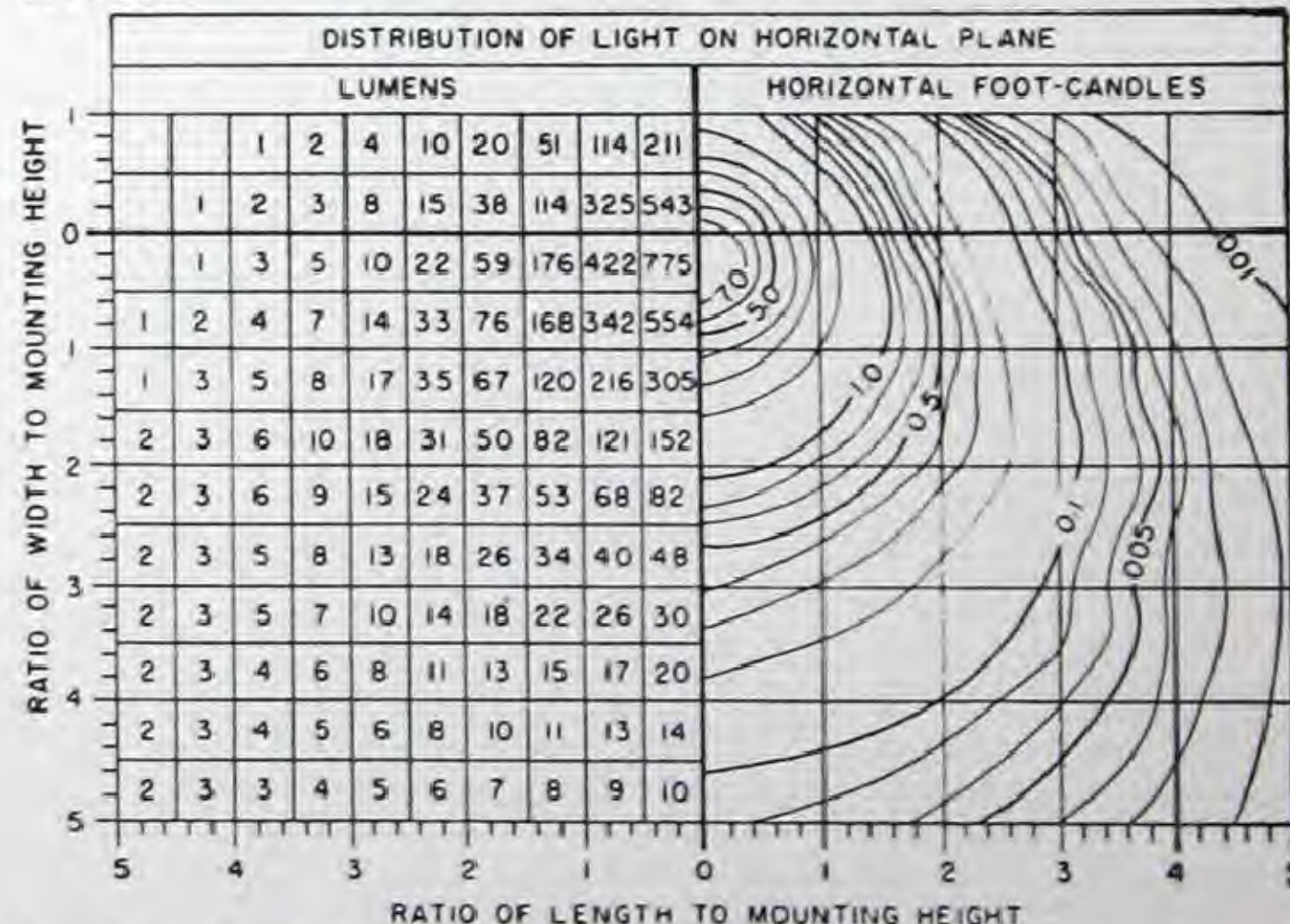
3. Approximate electrical data, average, at 115 volts, 60 cycles, shown at right.

Load	With High Power-factor Ballast Unit			With Normal Power-factor Transformer		
	Amp.	Watts (Overall)	P-f (Overall)	Amp.	Watts (Overall)	P-f (Overall)
Mercury and incandescent lamps.....	6.7	742	0.97	7.9	755	0.86
Mercury lamp only.....	4.2	442	0.91	5.9	455	0.67

## PHOTOMETRIC DATA



Type L-45-C



Type L-46-C

Prices and Other Data Subject to Change without Notice



# General Electric Novalux Floodlights

## Gas-pump-island Luminaire — Form 92

This radically-new-design pump-island luminaire overcomes many of the objections to island lights now in service. It is decidedly attractive, both in daytime and night-time appearance. Objectional glare is eliminated and an even distribution of light obtained by means of a shading reflector and rippled globe. Continued high efficiency is assured through the use of Alzak processed aluminum reflector and enclosing glassware that keeps dirt off the reflecting surface. This reflector has excellent durability and of course cannot chip or rust—thus assuring long life and low maintenance expense.



Overall Dimensions: 16½ In. high, 13⅞ In. wide

### FORM 92 PUMP-ISLAND LUMINAIRE

Cat. No.	List Price	Replacement Glass Globe	
		Type	List Price
A100G1	<b>\$14.00</b>	No. 211 clear rippled	<b>\$ 5.00</b>

The reflector is spun from sheet aluminum, Alzak processed to provide a high-efficiency diffused reflecting surface. It slips over the rim of the globe and is clamped with three bronze thumbscrews. A cork gasket is cemented to the reflector.

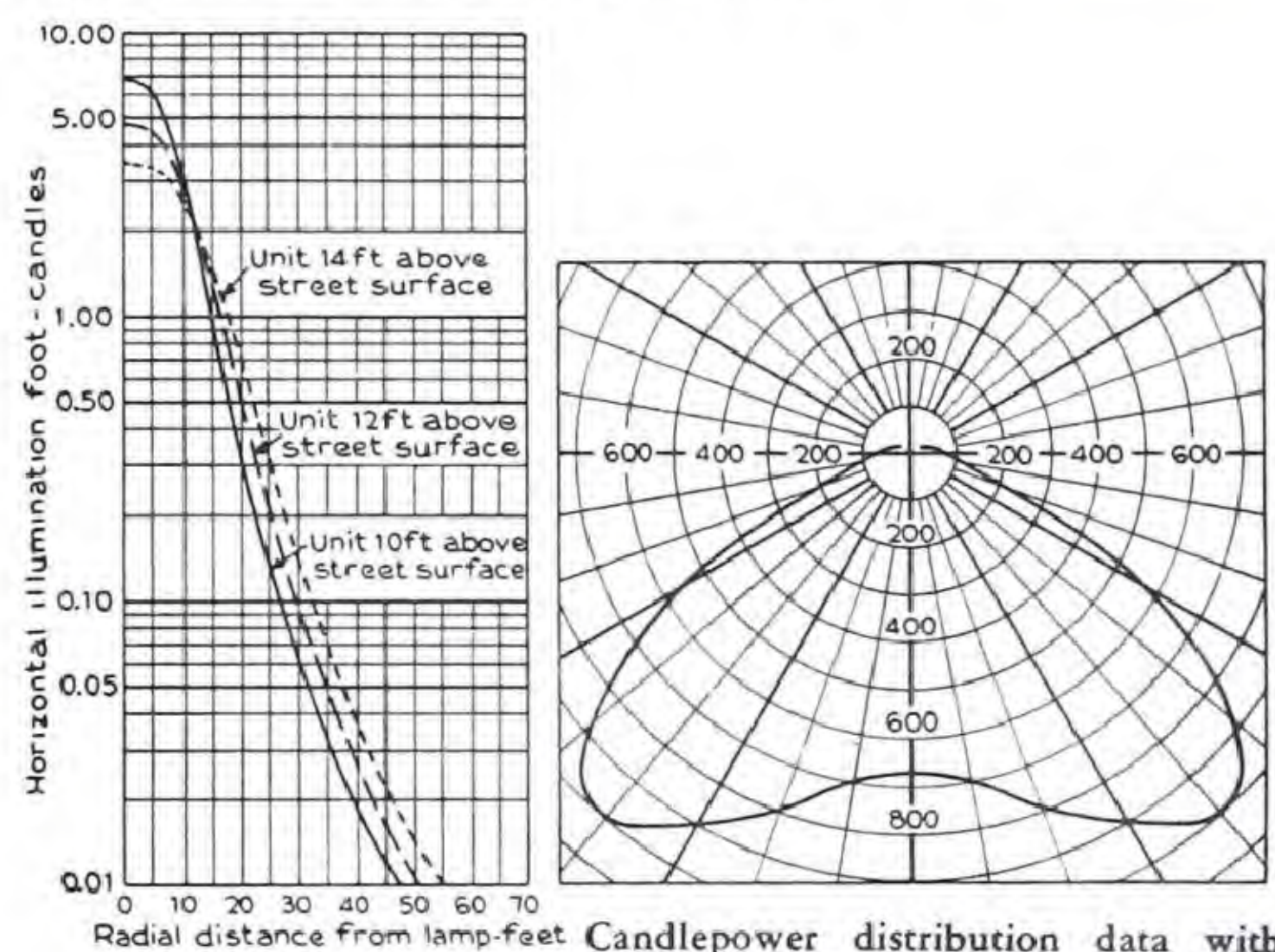
The globe is crystal-clear glass with smooth inner surface and rippled outer surface. Ripples are generally vertical but have no definite pattern, resulting in even illumination with attractive sparkle when lighted.

The support is made of cast iron and slips over a 2-in. standard pipe. The globe seat has a soft cushion and the clamping ring is attached with two screws.

A porcelain-base mogul lamp socket is supported base down on two studs and properly positions the lamp in the reflector without shadows.

The unit is fully enclosed and non-ventilated, capable of operating a 300- or 500-watt general-service incandescent lamp. Light distribution is symmetrical about the base and maximum candle power is approximately 45 degrees below horizontal.

Aluminum parts have natural finish; all iron or steel parts hot-dipped or electrogalvanized.



Candlepower distribution data with 300-watt lamp. When using 500-watt lamp, multiply candlepower and foot-candle values by 1.75.



Day view of filling station in Scotia, New York, equipped with the new units. Note the neat appearance and the sparkle in the globes



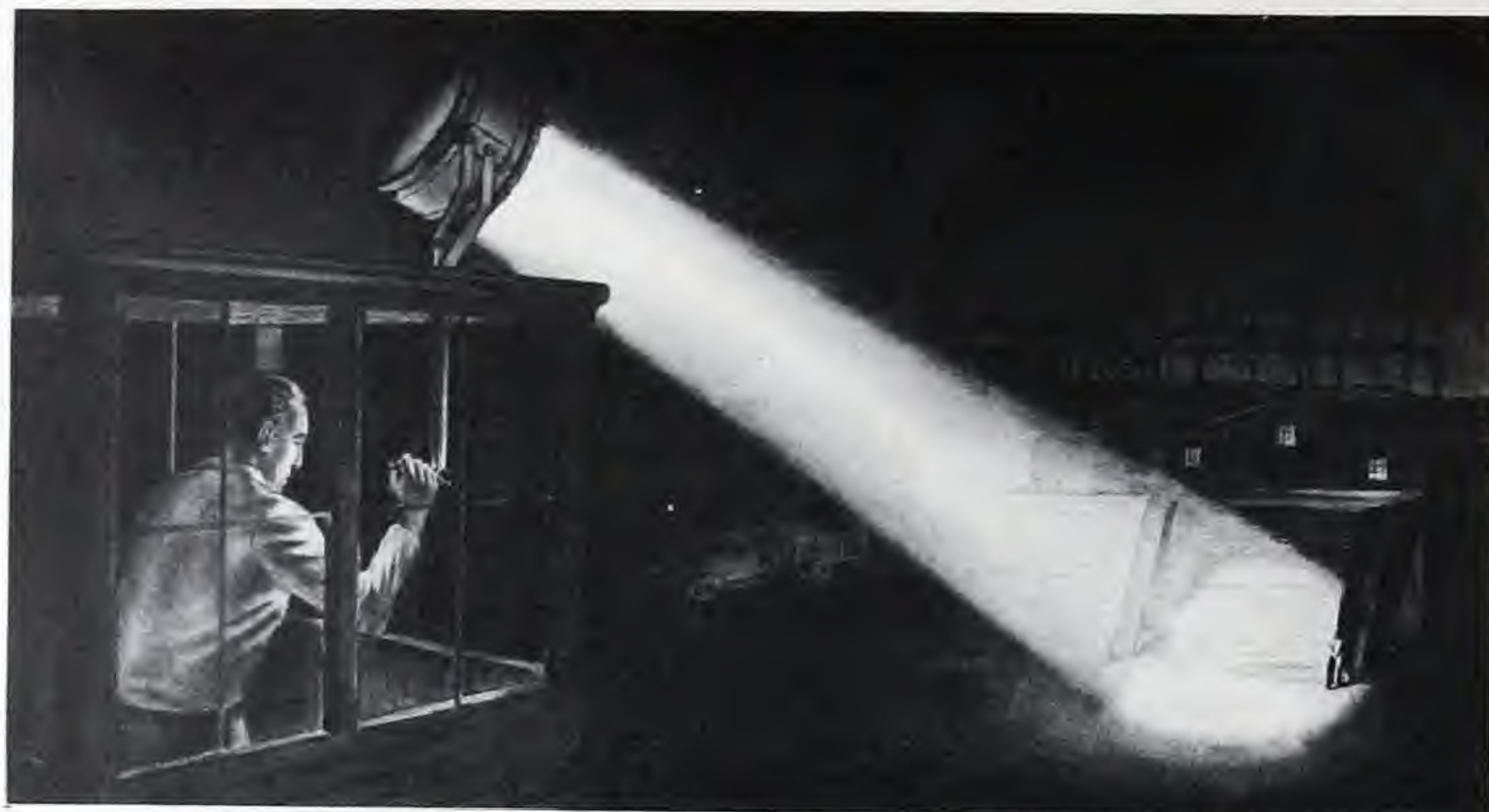
Filling station, equipped with the new luminaires. Note the absence of glare and bad shadows



# General Electric Incandescent Searchlight

TYPE S-5

- **INEXPENSIVE**
- **HIGHLY EFFICIENT**
- **WEATHERPROOF**
- **POWERFUL BEAM**
- **SILVERED-GLASS REFLECTOR**
- **AVAILABLE WITH PILOTHOUSE CONTROL**



Searchlights, commonly used in navigation, are now proving to be extremely valuable in the protective-lighting systems of industrial and governmental plants. The new Type S-5 18-inch incandescent searchlight is outstanding for protective-lighting applications because it is more efficient and less expensive than previous searchlights of this size. Designed to supplement other protective lighting equipment, it provides a powerful beam of light which can be directed wherever desired. In addition to furnishing protective lighting for industrial plants, this searchlight is valuable for the protecting of power plants, waterworks, prisons, and similar properties.

The S-5 is generally used with a type of mounting known as *pilothouse control*, which takes its name from a similar kind of mounting used on inland-waterway ships to help the pilot navigate at night. The searchlight is mounted on top of the pilothouse, and a control handle which permits adjustment of the floodlight beam both horizontally and vertically is located inside the pilothouse. This control is now being used on the tops of guardhouses and similar buildings around plants where it is necessary to supplement fixed lighting both along the fence line and in the yard. The Type S-5 provides an extremely flexible method of lighting areas within a radius of several hundred feet (in clear weather), so that a guard can see any possible intruder.

This searchlight is also used for marine applications and for the floodlighting of building towers, smokestacks, and similar advertising or decorative purposes.

## SPECIFICATIONS

**HOUSING**—The housing is made of sturdy, rust-resisting sheet metal. The door frame is made of a casting and is rigidly held to the housing by means of four strong door clamps. The door is hinged at the top to facilitate lamp removal.

**DOOR GLASS**—The door glass is heat- and weather-resisting convex glass, fully gasketed, 18 inches in diameter.

**REFLECTOR**—The 18-inch reflector has a parabolic contour made of silvered glass. Protective backing protects the silver.

**LAMP SOCKET**—The unit is equipped with a fixed-position, mogul, prefocus-type lamp socket, properly adjusted at the factory for mogul-prefocus-base lamps having a  $3\frac{15}{16}$ -inch light-center length. Each searchlight is furnished with a  $\frac{1}{2}$ -inch spacer so that mogul-prefocus-base lamps having  $3\frac{7}{16}$ -inch lamp-center lengths can readily be used. They can also be furnished with a mogul screw-base socket.

**LIGHT SHIELD**—The searchlight is furnished with a spherical auxiliary reflector to serve as a light shield and help build up the beam intensity.

**CABLE**—A 6-foot external length of 2-conductor, No. 12 AWG, Type PWP cable, approved by the Underwriters' Laboratories, is provided with each unit. Treated spun-glass sleeving protects each conductor against heat.

**FINISH**—The housing barrel is finished with aluminum paint on the outside and black paint inside. Other metal parts are hot-dip galvanized or of aluminum-paint finish.

**MOUNTING**—In addition to the pilothouse control mounting, two other types are available—the floodlight-type base shown in Fig. 4 and a high cast-aluminum-alloy pedestal base. With high base the over-all height of the floodlight is approximately 38 inches. The pilothouse-control mechanism has a turntable and ceiling plate with two ball-bearing rings, positive-acting friction lock, and a mechanism, controlled from the operating handle within the pilothouse, for both elevating and lowering the beam and sweeping it in a horizontal direction.



# General Electric Incandescent Searchlight

## TYPE S-5



Fig. 1. Type S-5 searchlight pilot-house control



Fig. 2. Type S-5 searchlight with pilot-house control

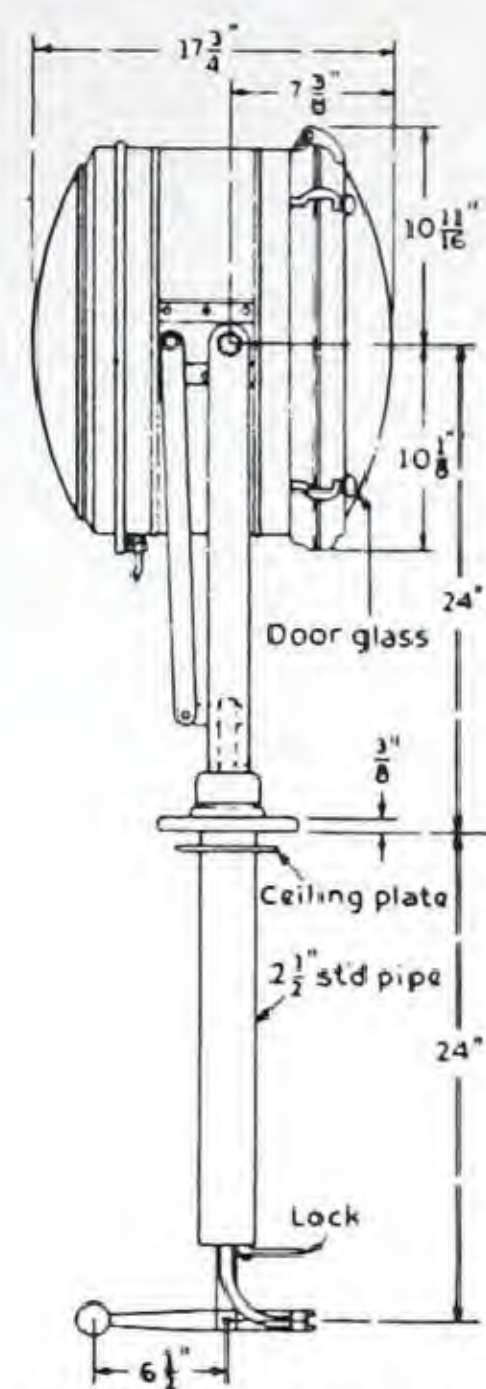


Fig. 3. Dimensions of Type S-5 searchlight with pilot-house control



Fig. 4. Type S-5 searchlight with swivel and trunnion mounting with oval base

## PHOTOMETRIC DATA

Lamp Watts	Lamp Burning Position	Volts	Lamp Ordering	Rated Hours Life	Type of Base	Light Center Length (Inches)	Lamp Description	Avg Beam Candle-power (Millions)	Beam Lumens	BEAM SPREAD		Photometric Data
										Horizontal	Vertical	
900	Within 25° of Base Down	28-32	900T20P	100	Mogul Prefocus	3 7/16	Projection	3.31	5715	3.4	4.5	H-135272
1000	Within 25° of Base Down	30	1M/T20P 1M/T20/30*	500	Mogul Prefocus	3 7/16	Air Way Beacon	2.74	7386	4.9	4.8	H-135248
1000	Within 25° of Base Down	115	1M/T20P	50	Mogul Prefocus	3 7/16	Projection	2.04	6398	5.0	5.1	H-135273
1500	Base Down to Base Horizontal	115	1500G48/6	800	Mogul Screw Base	5 1/4	Flood-lighting	1.27		5.2	4.4	Calculated
1500	Base Down to Base Horizontal	115	1500G40/15	200	Mogul Prefocus	3 15/16	Spotlight	2.56	7792	5.2	5.5	H-135275

1. Photometric data are for estimating purposes only. For laboratory test data refer to General Office.
2. Can be furnished to accommodate other lamps.

\* Special lamps not generally available.

## PRICES

Description	Cat. No.	List Price GO-54	APPROX NET WT IN LB		Fig. No.	Outline Drawing
			Net	Ship.		
Oval (Low) Base	A153G6	\$195.00	45	115	4	K-5563507
High Pedestal	A153G8	220.00	50	125	..	K-5563784
Pilothouse Control	A153G5	275.00	85	136	1	K-5563503

1. Price and catalog number do not include MAZDA lamp.
2. Other mountings for low-base: Furnished with clamp for 1- to 2-inch pipe or 2- to 3 1/2-inch pipe or slip fitter for 1 1/2-in., 2-in., or 2 1/2-in. pipe at same price.
3. Furnished with socket for mogul-prefocus-base lamps with 3 15/16 in. light center. Socket spacers for use with 3 7/16-in. light-center prefocus base lamps included. On request, will be furnished with mogul screw-base socket for 1500 watt floodlighting G-48 lamp, but no focusing mechanism is furnished.



# Floodlighting and Pump Island Standards

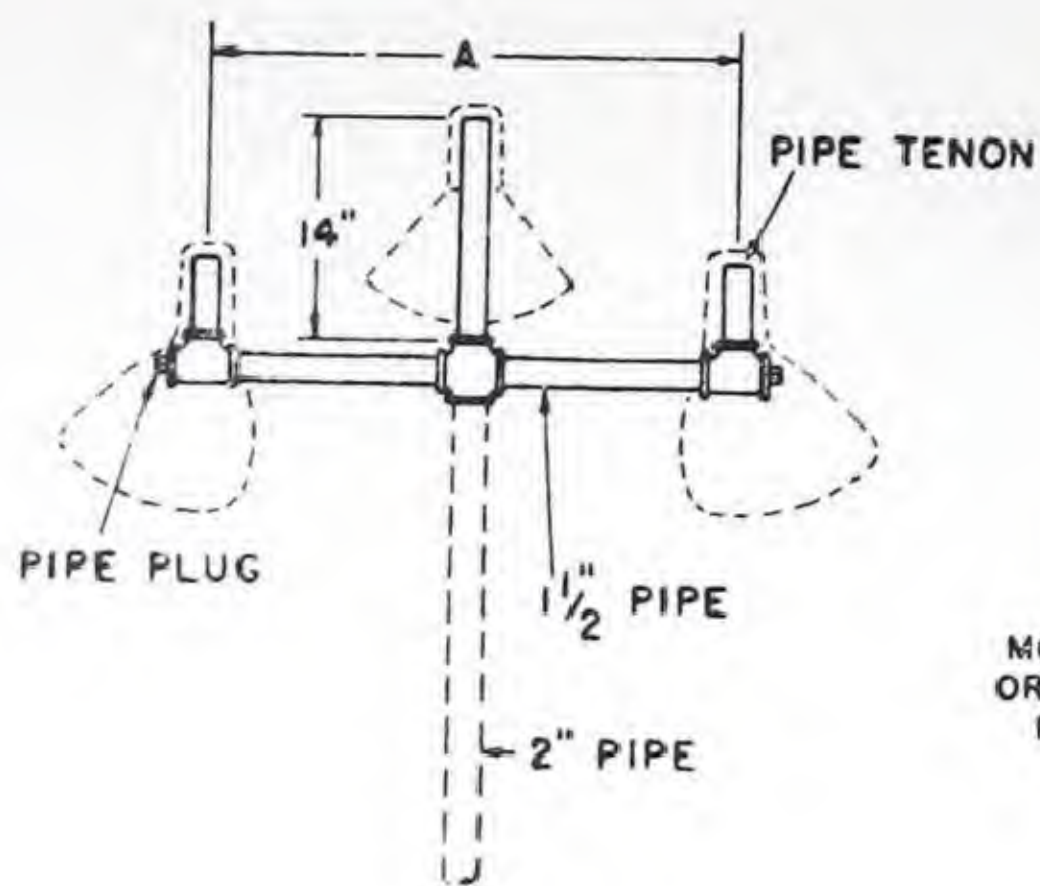


FIG. 1

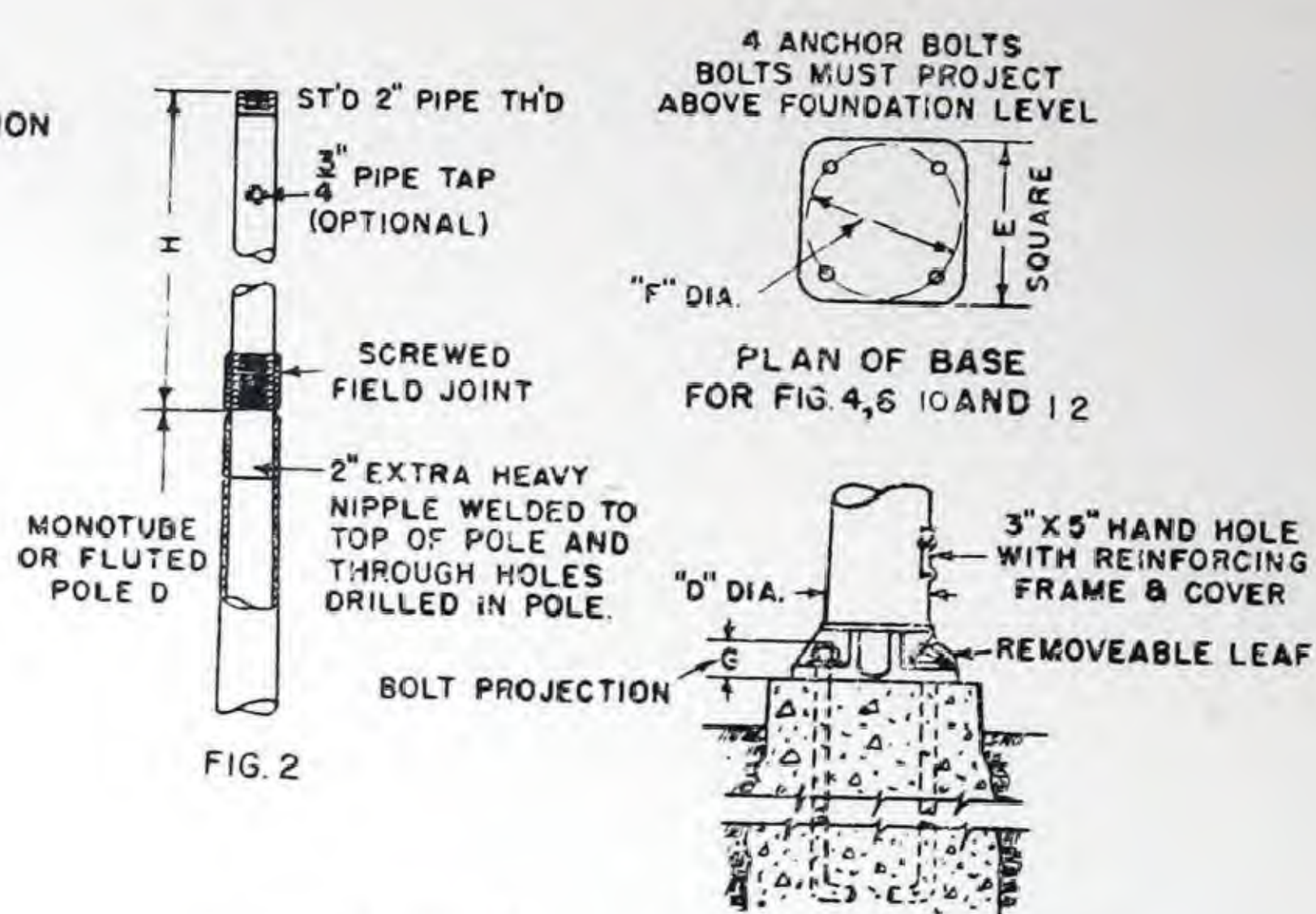
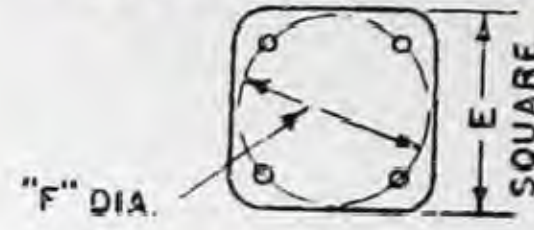
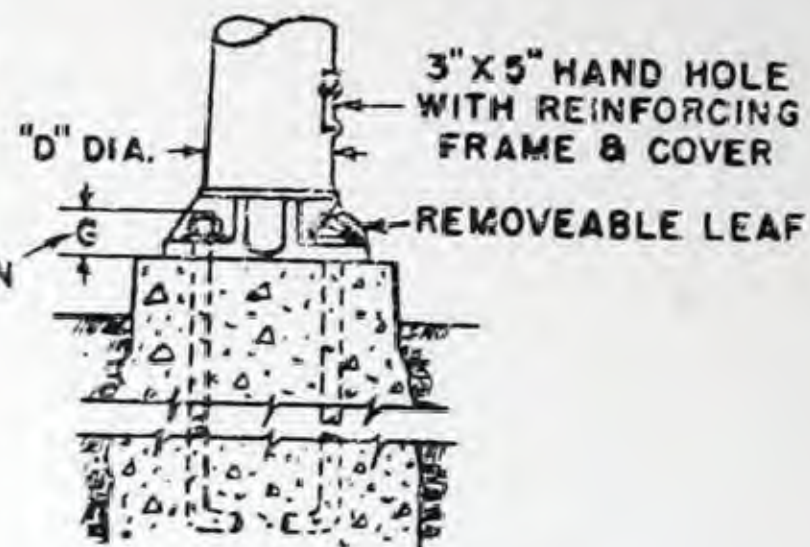


FIG. 2

4 ANCHOR BOLTS  
BOLTS MUST PROJECT  
ABOVE FOUNDATION LEVEL



PLAN OF BASE  
FOR FIG. 4, 6, 10 AND 12



BASE & MOUNTING DETAIL  
FIG. 3

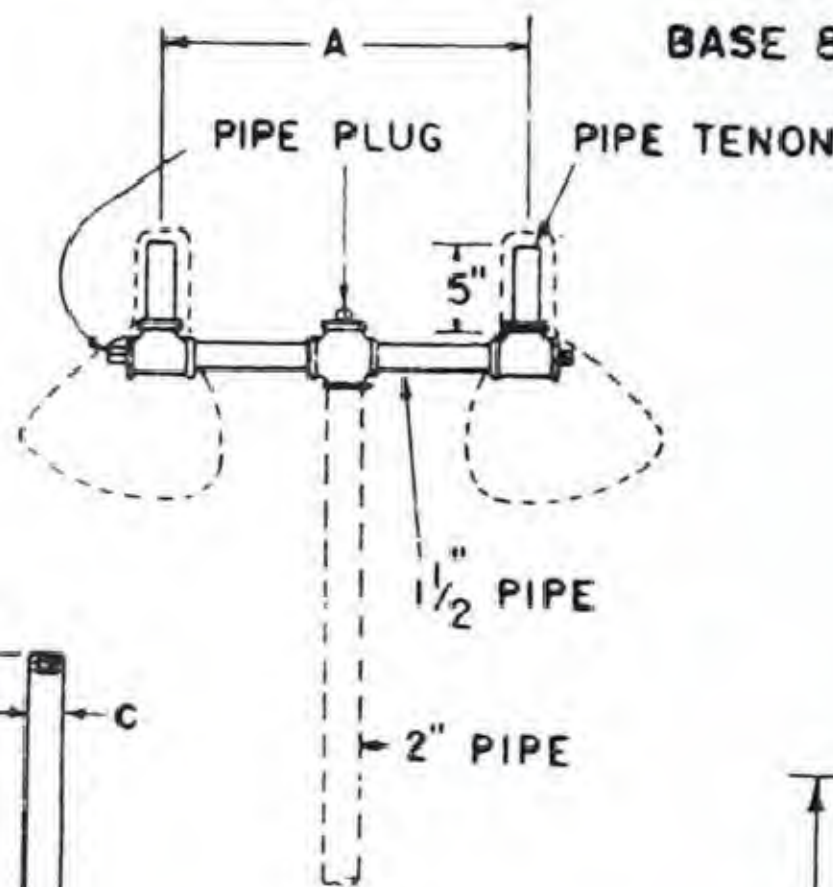


FIG. 5

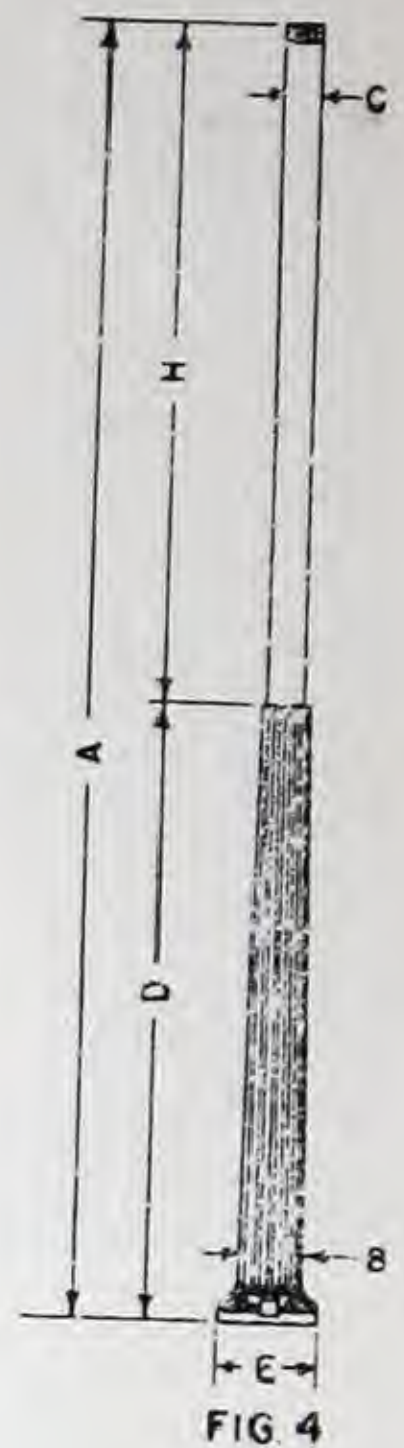


FIG. 4

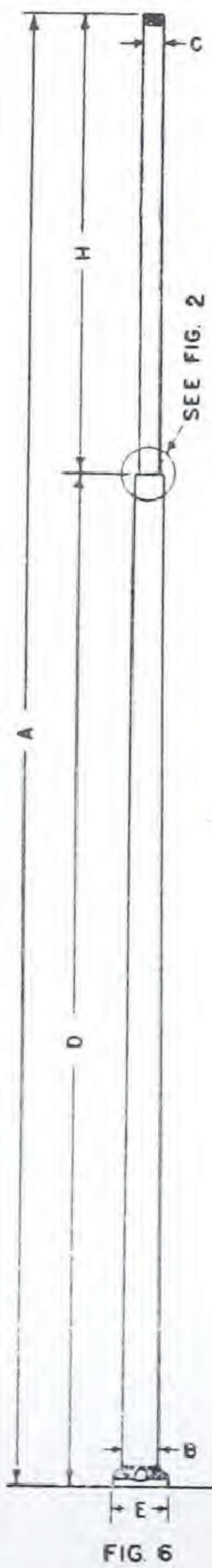


FIG. 6

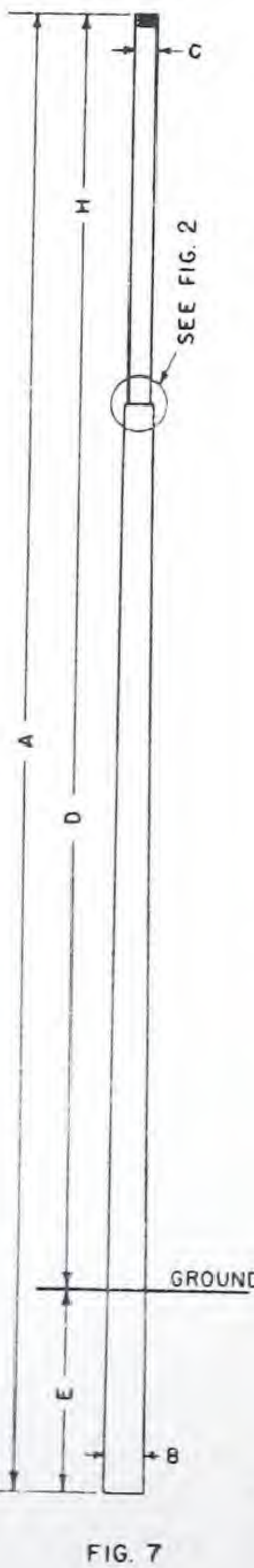


FIG. 7

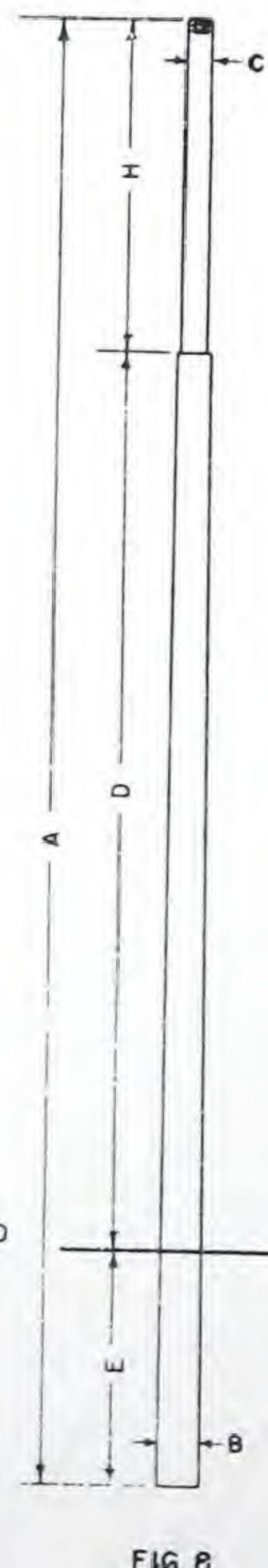


FIG. 8

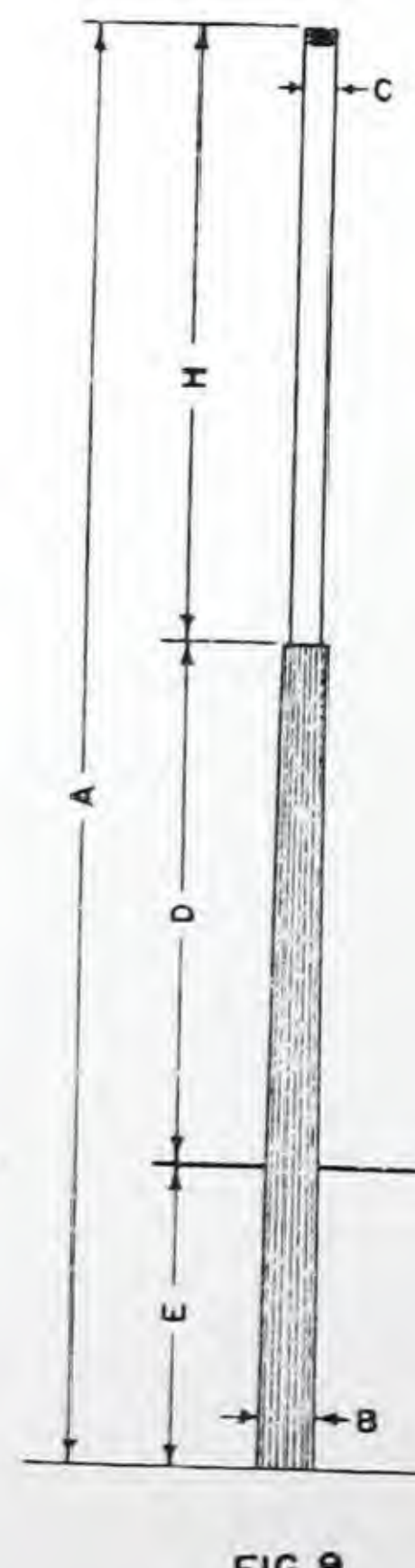


FIG. 9

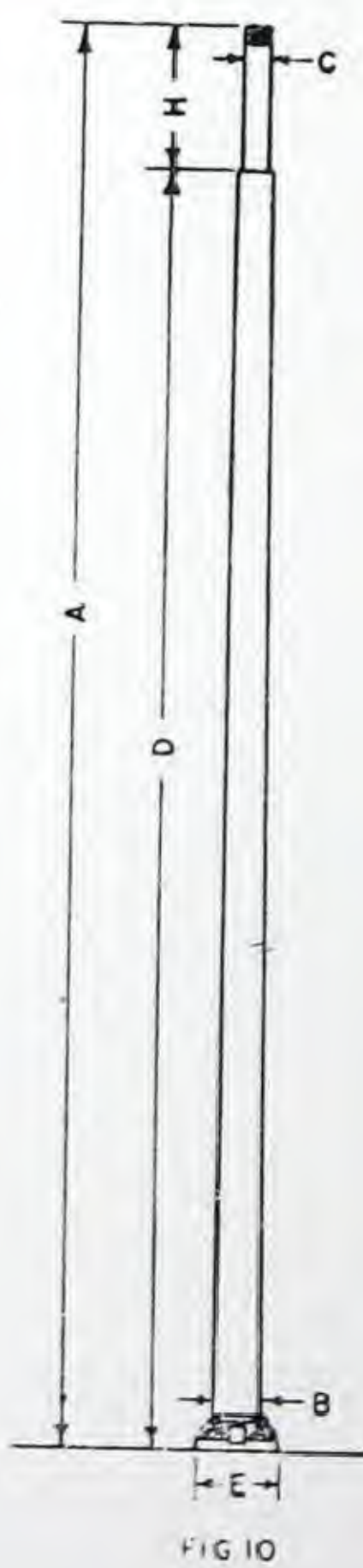


FIG. 10

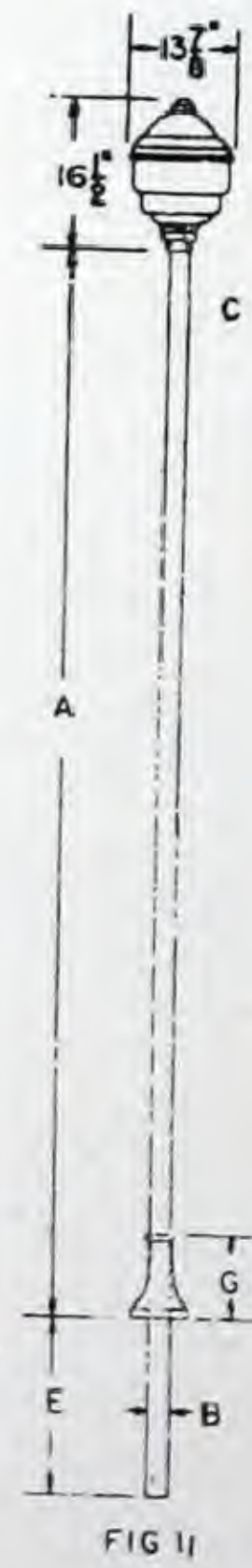


FIG. 11



FIG. 12



# Floodlighting and Pump Island Standards

Fig. No. Pg. 2	MONOTUBE		FLUTED		A	B	C	D	E	F	G	H	Gage	Maximum Square Feet of Floodlight Area	Approx Ship. Wt in. Lb
	Union Metal Design No.		Union Metal Design No.		Ft.-In.	In.	In.	Ft.-In.	In. or Ft.	In.	In.	Ft.-In.			

## AREA LIGHTING STANDARDS

ANCHOR-BASE TYPE															
6†	5721		5821		20-0	5		14-0	8	8	1 3/4	6-0	11	10	139
	5722		5822		20-0	5 1/2		18-0	9	8 1/2	1 1/8	2-0	11	10	154
	5723		5823		25-0	6		21-6	9 1/2	9	1 1/8	3-6	11	10	195
	5723X1		5823X1		30-0	6		21-6	9 1/2	9	1 1/8	8-6	11	10	216
	5724Y1		5824Y1		30-5	7 1/2		30-0	11	10 1/2	2 5/8	0-5	11	10	312
	5725Y2		5825Y1		35-5	8		35-0	11 1/2	11	2 11/16	0-5	11	10	360
EMBEDDED-BASE TYPE															
7††	5726		5826		23-0	5		11-0	3-0			9-0	11	10	117
	5728		5828		24-0	6		17-6	4-0			2-6	11	10	145
	5727		5827		28-0	5 1/2		15-0	3-0			10-0	11	10	143
	5728X1		5828X1		29-0	6		17-6	4-0			7-6	11	10	170
	5729Y10		5829Y1		30-5	7 1/2		25-0	5-0			0-5	11	10	229
	5730Y1		5830Y1		35-5	8		30-0	5-0			0-5	11	10	274

## PUMP ISLAND LIGHTING STANDARDS

ANCHOR-BASE TYPE															
10†	6034AE10		6034AD10		10-3	4 1/2		10-0	8	8	1 3/4	0-3	11	Form 92	90
	6034Y4		6034Y9		12-3	4 1/2		10-0	8	8	1 3/4	2-3	11	Form 92	97
	6034Y5		6034Y10		14-3	5		14-0	8	8	1 3/4	0-3	11	Form 92	118
	6034Y6		6034Y11		18-3	5		14-0	8	8	1 3/4	4-3	11	Form 92	133
	6034Y7		6034Y12		22-3	5 1/2		18-0	9	8 1/2	1 1/8	4-3	11	Form 92	162
	6034Y8		6034Y13		24-3	5 1/2		18-0	9	8 1/2	1 1/8	6-3	11	Form 92	170
11	9103				10-0	2 3/8	2 3/8		1-8		9		Pipe	Form 92	56
4			40404Y1		11-0	3 1/2	2 3/8	5-0	8 1/2	8	1 3/4	6-0	{ Seam-less tubing }	Form 92	65
EMBEDDED-BASE TYPE															
8††	6034Y14		6034Y20		12-3	5		10-0	2-0			0-3	11	Form 92	74
	6034Y15		6034Y21		14-3	5		10-0	2-0			2-3	11	Form 92	81
	6034Y16		6034Y22		18-3	5		11-0	3-0			4-3	11	Form 92	98
	6034Y17		6034Y23		22-3	5 1/2		15-0	3-0			4-3	11	Form 92	126
	6034Y18		6034Y24		24-3	5 1/2		15-0	3-0			6-3	11	Form 92	134
	6034Y19		6034Y25		28-3	6		17-9	4-0			6-9	11	Form 92	168
9			40404Y3		14	3 1/2	2 3/8	5-0	3-0			6-0	{ Seam-less tubing }	Form 92	75

## HINGED FLOODLIGHT STANDARDS

Fig. No. Pg. 2	Design No.	A	B	C	D	Maximum Sq Ft of Floodlight Area	Shape of Pole	Approx Ship. Wt in Lb
		Ft.-In.	In.	In.	In.			
12	6029-X11§	24-0	5			6	Round	220
	40322-Y1§	24-0	6	2	3.22	8	Octagonal	266
	40403§	24-0	3	2		6	Square	186
	40414§	24-0	3 1/2	2 3/8	3	6	Round	185
		If lowering chain not required, deduct If 3/4-in. hole for conduit required, add						3

## ACCESSORIES

Description	Approx Ship. Wt in Lb	Description	Approx Ship. Wt in Lb
2-in. pipe coupling welded to top of pole for floodlight extension.....	2	Tapped hole for junction box.....	..
2 by 4 in. hand hole cover.....	2	3/4-in. tapped hole for conduit.....	..
3 by 5 in. hand hole and cover.....	2		

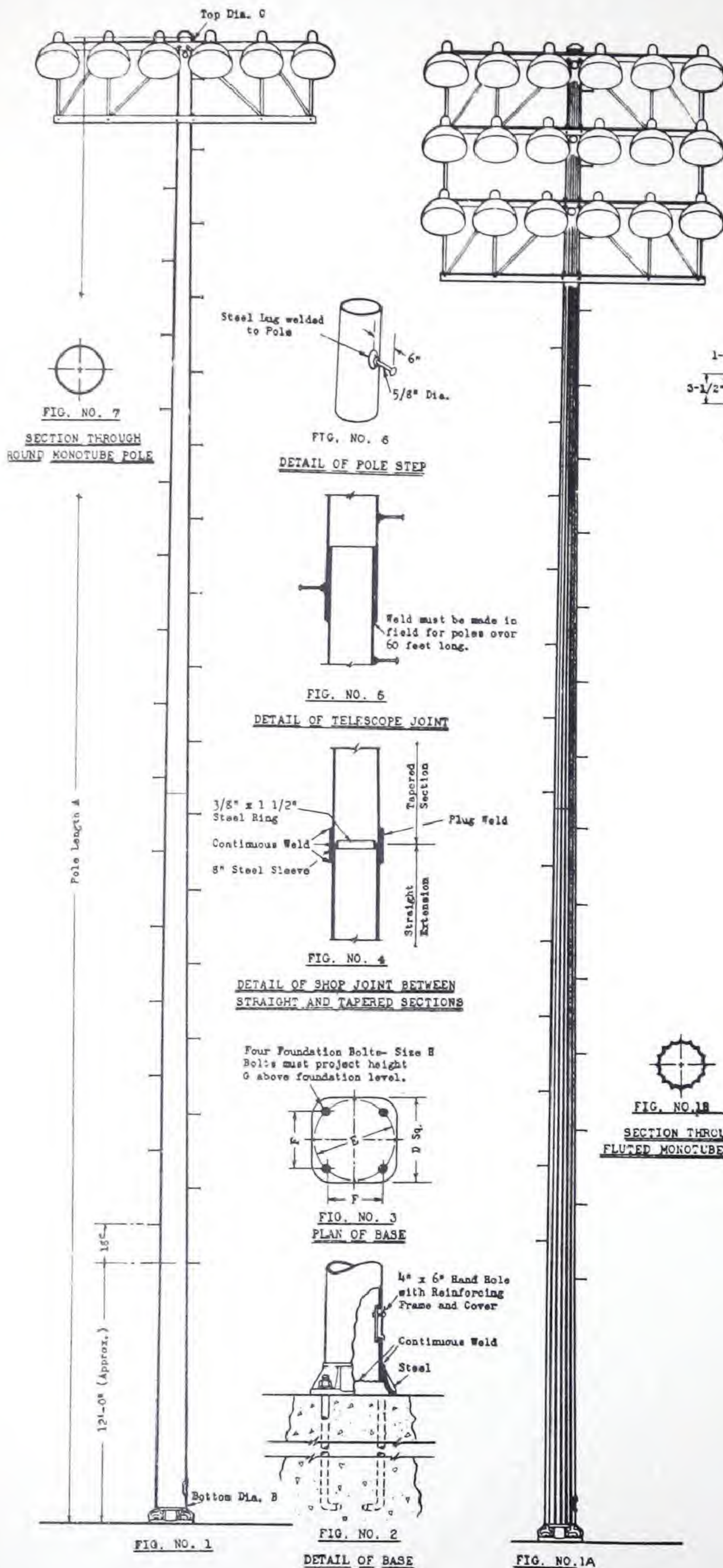
## PIPE ASSEMBLY AREA LIGHTING MOUNTING ARRANGEMENTS

Fig. No. Pg. 2	Union Metal Design No.	No. of Floodlights	Size Pipe Tenon in In.	Dimen. "A" in In.	Approx Ship Wt in Lb	Fig. No.	Union Metal Design No.	No. of Floodlights	Size Pipe Tenon in In.	Dimen. "A" in In.	Approx Ship. Wt in Lb
5	5594Y1	2	1 1/2	22	14	5	5594Y6	2	2	45	22
5	5594Y2	2	2	22	16	1	5595Y1	3	1 1/2	32	20
5	5594Y3	2	1 1/2	32	17	1	5595Y2	3	2	32	23
5	5594Y4	2	2	32	19	1	5595Y3	3	1 1/2	45	25
5	5594Y5	2	1 1/2	45	20	1	5595Y4	3	2	45	26

- † All standards are furnished with 2-in. pipe extension; mounting arrangements are extra.  
 ‡ Does not include anchor rods; add \$1.10 list for set of 4 5/8 by 12-in. anchor rods.  
 § Complete with lowering chain and anchor bolts.  
 ¶ Hinged floodlight standard of 11-gage steel.  
 ¶ Furnished with hole tapped for 3/4-in. conduit, located a short distance above the ground line.



# Standards for Sports Field Floodlighting



## GENERAL INFORMATION

Design numbers include pole with steel anchor base, foundation bolts with nuts and cover leaves, shims, hand hole with reinforcing frame and cover at bottom of pole, pole steps, pole top, wiring outlets under each arm carrying floodlights, and floodlight mounting, but do not include floodlights.

Tabulated length of foundation bolts is length before bending L at bottom.

The hole spacing arrangement in crossarms (Fig. 9) will accommodate more standard makes of floodlights having one, two or three bolt fastening. Bolts are not supplied with pole.

Capacity of poles to carry the number of floodlights indicated is based on a maximum floodlight diameter of 20 in. and on using underground wiring. Special consideration must be given for floodlights of larger diameter or if overhead wiring is used.

Poles up to 40 ft are made and shipped in one piece.

Poles over 40 ft and up to 60 ft are made in two sections with a telescoped welded shop joint (Fig. 5) but will be shipped in one piece unless otherwise specified.

Poles over 60 ft will be shipped in two sections for field splicing.

Joint between straight extension and tapered section will be made in shop. (Fig. 4).

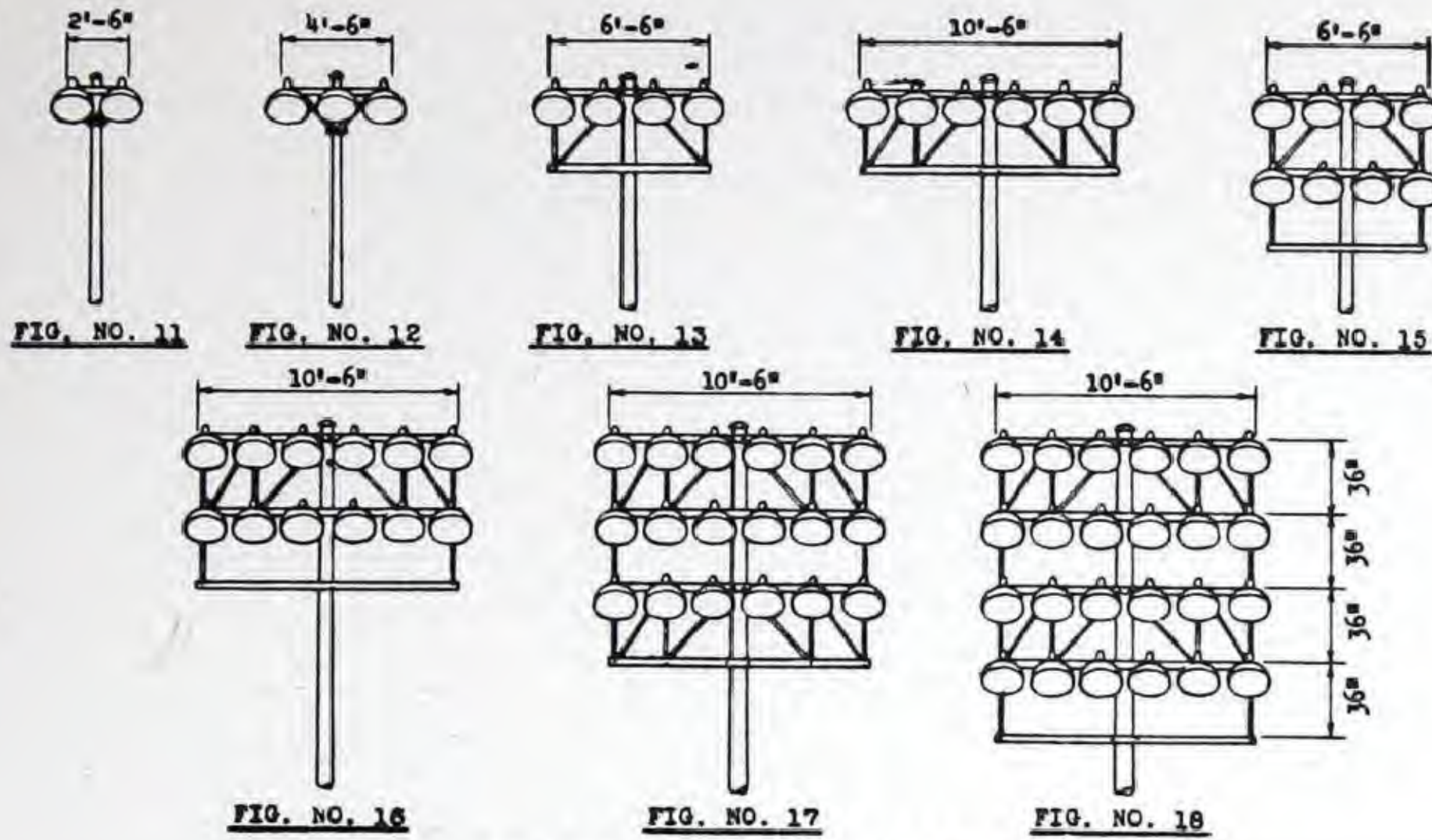
Foundation bolts will be shipped in advance of poles only when requested.

Special accessories detailed under Fig. 20 are available at extra cost.

Special pole sizes and mounting arrangements can be furnished on request.

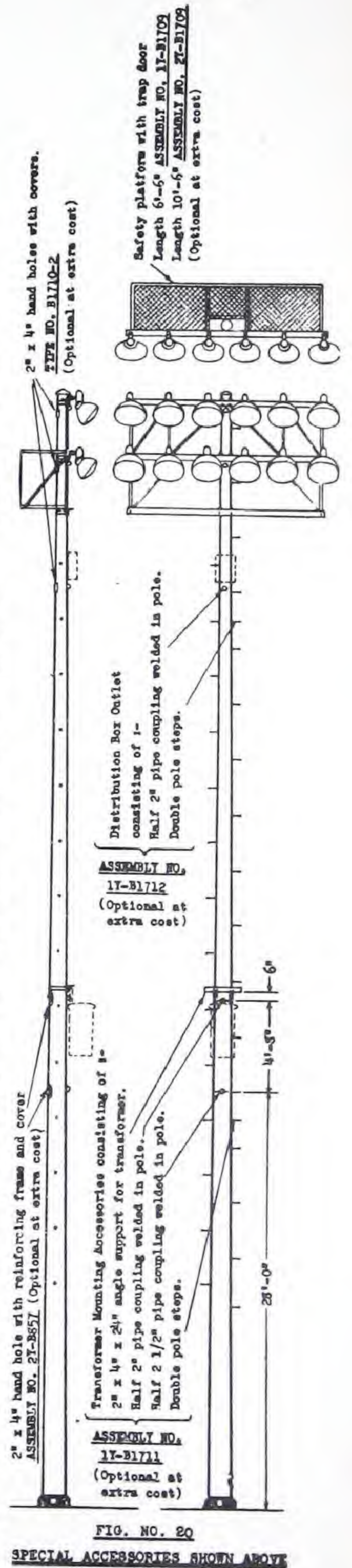


# Standards for Sports Field Floodlighting



MONOTUBE POLE DATA

DESIGN NUMBER				Fig. No.	No. of Lights	POLE SIZE			Size of Base in Inches	FOUNDATION BOLTS (Dimensions in Inches)				GAGE OF POLES			Strength in Foot Lbs at Bottom	APPROX SHIP. WT IN LB			
Round Pole Fig. 1A	Fluted Pole Fig. 1B					Ft	Bottom Dia.	Top Dia.		Spacing		Pro-jection	Diam-eter and Length	Bottom Extension	Lower Section	Top Section		Round Pole	Fluted Pole		
										In.	In.									Circle	Square
545-Y1	545-Y46			11	230	7.5	3.3	11	10 1/2	7 7/16	2 5/8	1x40	Bottom Extension is made without taper and is used only with Three Section poles.	11	Top Section is used only with Two and Three Section poles.	31,500	361	...			
545-Y2	545-Y47			11	230	9.5	5.3	13 1/2	13	9 3/16	3 1/8	1x40		11		51,100	...	465			
545-Y3	545-Y48			12	330	7.5	3.3	11	10 1/2	7 7/16	2 5/8	1x40		11		31,500	371	...			
545-Y4	545-Y49			12	330	9.5	5.3	13 1/2	13	9 3/16	3 1/8	1x40		11		51,100	...	475			
545-Y5	545-Y50			13	430	7.5	3.3	11	10 1/2	7 7/16	2 5/8	1x40		11		31,500	409	...			
545-Y6	545-Y51			13	430	9.5	5.3	13 1/2	13	9 3/16	3 1/8	1x40		11		51,100	...	513			
545-Y7	545-Y52			11	235	8.0	3.1	11 1/2	11	7 3/4	2 1 1/16	1x40		11		35,900	415	...			
545-Y8	545-Y53			11	235	10.0	5.1	14 1/8	13 1/2	9 9/16	3 3/8	1x40		11		56,400	...	534			
545-Y9	545-Y54			12	335	8.0	3.1	11 1/2	11	7 3/4	2 1 1/16	1x40		11		35,900	425	...			
545-Y10	545-Y55			12	335	10.0	5.1	14 1/8	13 1/2	9 9/16	3 3/8	1x40		11		56,400	...	544			
545-Y11	545-Y56			13	435	9.5	4.6	13 1/2	13	9 3/16	3 3/8	1x40		11		51,100	553	...			
545-Y12	545-Y57			13	435	10.0	5.1	14 1/8	13 1/2	9 9/16	3 3/8	1x40		11		56,400	...	582			
545-Y13	545-Y58			11	240	9.0	3.4	12 3/4	12 1/2	8 7/8	3 1/16	1x40	Bottom Extension is made without taper and is used only with Three Section poles.	11	Top Section is used only with Two and Three Section poles.	45,700	503	...			
545-Y14	545-Y59			11	240	11.0	5.4	15 5/8	15	10 5/8	3 5/8	1 1/4x48		11		68,800	...	677			
545-Y15	545-Y60			12	340	9.0	3.4	12 3/4	12 1/2	8 7/8	3 1/16	1x40		11		45,700	513	...			
545-Y16	545-Y61			12	340	11.0	5.4	15 5/8	15	10 5/8	3 5/8	1 1/4x48		11		68,800	...	687			
545-Y17	545-Y62			13	440	11.0	5.4	15 5/8	15	10 5/8	3 5/8	1 1/4x48		11		68,800	725	725			
545-Y18	545-Y63			14	640	12.0	6.4	17	16	11 5/16	4	1 1/2x60		11		82,200	877	877			
545-Y19	545-Y64			15	840	12.0	6.4	17	16	11 5/16	4	1 1/2x60		11		82,200	867	867			
545-Y20	545-Y65			16	1240	12.0	6.4	17	16	11 5/16	4	1 1/2x60		11		121,500	1202	1202			
545-Y21	545-Y66			11	250	10.0	3.3	14 1/8	13 1/2	9 9/16	3 3/8	1x40		11		56,400	664	...			
545-Y22	545-Y67			11	250	12.0	5.3	17	16	11 5/16	4	1 1/2x60		11		82,200	...	910			
545-Y23	545-Y68			12	350	10.0	3.3	14 1/8	13 1/2	9 9/16	3 3/8	1x40		11		56,400	674	...			
545-Y24	545-Y69			12	350	12.0	5.3	17	16	11 5/16	4	1 1/2x60		11		82,200	920	920			
545-Y25	545-Y70			13	450	12.0	5.3	17	16	11 5/16	4	1 1/2x60	11	82,200	958	958					
545-Y26	545-Y71			14	650	12.0	5.4	17	16	11 5/16	4	1 1/2x60	11	121,500	1331	1331					
545-Y27	545-Y72			15	850	12.0	5.4	17	16	11 5/16	4	1 1/2x60	7	121,500	1321	1321					
545-Y28	545-Y73			16	1250	12.0	5.5	17	16	11 5/16	4	1 3/4x60	3	159,300	1765	1765					
545-Y29	545-Y74			17	1850	13.0	6.6	18 1/2	18	12 3/4	4 1/4	2x60	0	231,000	2317	...					
545-Y30	545-Y75			18	2450	14.0	7.6	20 1/2	20	14 1/8	4 3/4	2x60	0	269,000	2670	...					
545-Y31	545-Y76			13	460	13.0	4.9	18 1/2	18	12 3/4	4 1/4	1 1/2x60	7	142,800	1376	...					
545-Y32	545-Y77			14	660	13.0	5.0	18 1/2	18	12 3/4	4 1/4	1 1/2x60	7	142,800	...	1572					
545-Y33	545-Y78			15	860	13.0	5.0	18 1/2	18	12 3/4	4 1/4	1 1/2x60	7	142,800	1562	1562					
545-Y34	545-Y79			16	1260	14.0	6.0	20 1/2	20	14 1/8	4 3/4	1 3/4x60	3	218,600	2127	2150					
545-Y35	545-Y80			17	1860	14.0	6.1	20 1/2	20	14 1/8	4 3/4	2x60	0	269,000	2686	...					
545-Y36	545-Y81			18	2460	14.0	6.1	23	22	15 1/2	5 1/4	2x60	7&7	324,000	3181	3201					
545-Y37	545-Y82			14	665	14.0	5.3	20 1/2	20	14 1/8	4 3/4	1 1/2x60	7	166,200	1810	1832					
545-Y38	545-Y83			16	1265	14.0	5.4	20 1/2	20	14 1/8	4 3/4	1 3/4x60	3	218,600	2377	2399					
545-Y39	545-Y84			17	1865	14.0	5.5	23	22	15 1/2	5 1/4	2x60	7&7	324,000	3402	...					
545-Y40	545-Y85			18	2465	14.0	5.5	23	22	15 1/2	5 1/4	2 1/4x72	11&0	372,000	3830	...					
545-Y41	545-Y86			14	670	14.0	4.6	20 1/2	20	14 1/8	4 3/4	1 3/4x60	3	218,600	2217	...					
545-Y42	545-Y87			16	1270	14.0	4.7	20 1/2	20	14 1/8	4 3/4	2x60	0	269,000	2813	...					
545-Y43	545-Y88			17	1870	14.0	5.0	23	22	15 1/2	5 1/4	2x60	7&7	324,000	3636	...					
545-Y44	545-Y89			18	2470	14.0	5.1	23	22	15 1/2	5 1/4	2 1/4x72	3&3	422,000	4643	...					
545-Y45	545-Y90			14	675	14.0	4.0	20 1/2	20	14 1/8	4 3/4	1 3/4x60	3	218,600	2450	...					
545-Y46	545-Y91			16	1275	14.0	4.0	20 1/2	20	14 1/8	4 3/4	2x60	0	269,000	2880	...					
545-Y47	545-Y92			17	1875	14.0	4.8	23	22	15 1/2	5 1/4	2 1/4x72	11&0	372,000	4158	...					
545-Y48	545-Y93			18	2475	14.0	5.0	23	22	15 1/2	5 1/4	2 1/4x72	7&0	421,000	4734	...					
545-Y49	545-Y94			14	680	14.0	4.6	20 1/2	20	14 1/8	4 3/4	1 3/4x60	3	218,600	2468	...					
545-Y50	545-Y95			16	1280	14.0	4.7	23	22	15 1/2	5 1/4	2x60	7&7	324,000	3749	...					
545-Y51	545-Y96			17	1880	14.0	4.8	23	22	15 1/2	5 1/4	2 1/4x72	3&3	422,000	4650	...					
545-Y52	545-Y97			18	2480	14.0	5.0	23	22	15 1/2	5 1/4	2 1/4x72	3&0	469,000	5284	...					
545-Y53	545-Y98			16	1290	14.0	4.7	23	22	15 1/2	5 1/4	2 1/4x72	11&0	372,000	4583	...					
545-Y54	545-Y99			17	1890	14.0	4.8	23	22	15 1/2	5 1/4	2 1/4x72	3&0	469,000	5689	...					
545-Y55	545-Y100			18	2490	14.0	5.0	23	22	15 1/2	5 1/4	2 1/4x72	0&0	514,000	6439	...					





# General Electric Novalux Floodlights

## Electric Fountains



A three-projector lily-pond projector in a garden

Electric fountains are spectacular attractions that always win enthusiastic approval. They can be made in practically any size and design and are well adapted for public parks, private estates, hotel grounds, cemeteries, etc.

Various water effects are furnished by multiple jets and sprays, which, in the case of larger fountains, have electrically operated control valves connected to an automatic timer.

Lighting effects are obtained from automatic control of the submerged floodlights that are equipped with red, amber, green, or blue cover glasses. The specially designed floodlights are made of cast aluminum, for use in fresh water, or cast bronze for use in sea water or where chemicals are present.

The General Electric Company furnishes floodlights, spray jets and nozzles, electric valves, and control apparatus, together with suggestions for the design and construction of the basin with its piping and wiring. These equipments provide an electric fountain of co-ordinated design. Design of the basin proper by a local architect is encouraged. Information on various standard designs, as well as assistance with special designs, is available upon request.

### LILY-POND THREE-PROJECTOR FOUNTAIN

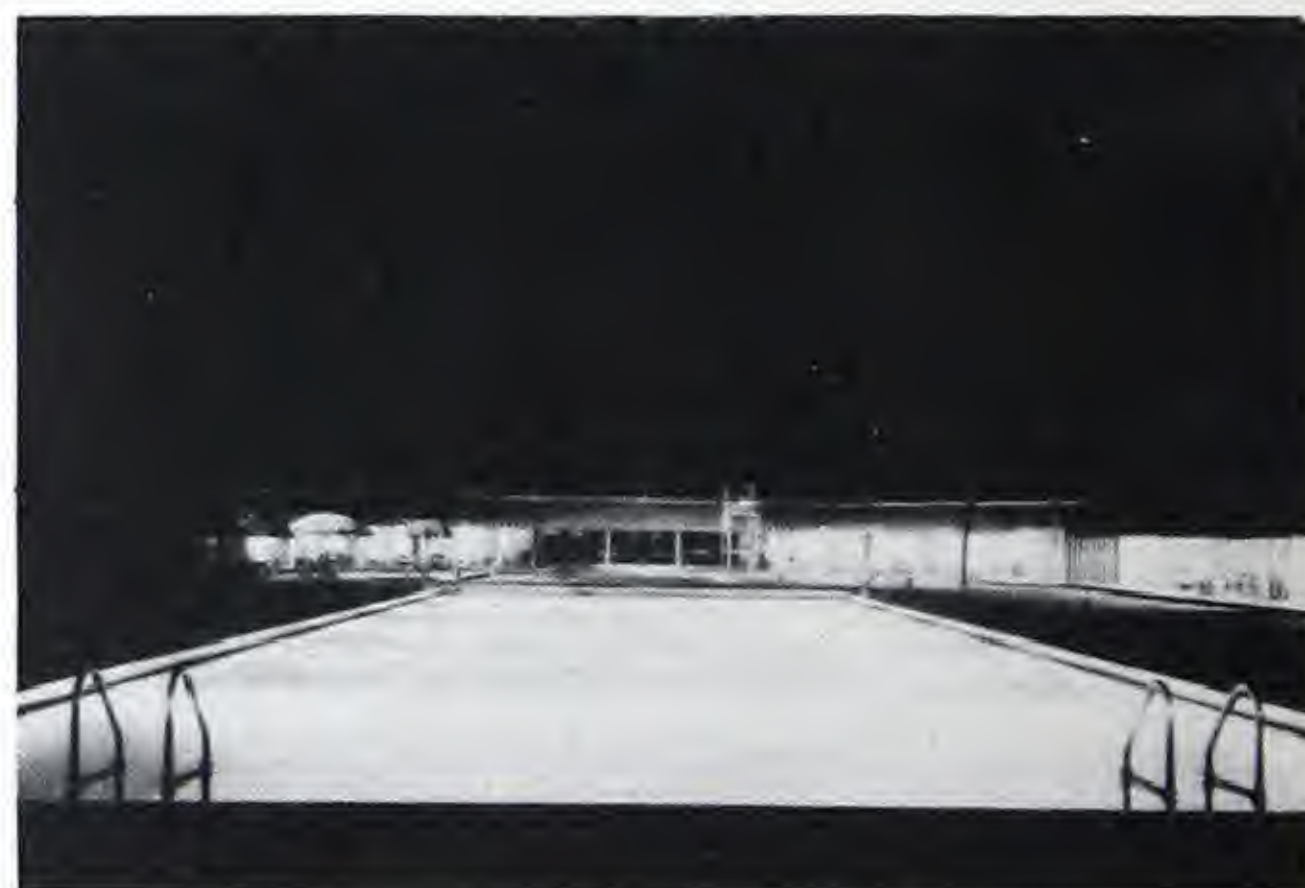
A popular electric fountain designed for lily ponds and pools on private estates. Seven lighting effects are obtainable from the three small floodlights. This fountain fits in a pool of about 20-ft. diameter and can usually be installed for \$700 to \$850 complete. It has an average lighting load of 500 watts which gives excellent results in dark surroundings. Write for further information.

## Swimming Pool Floodlighting

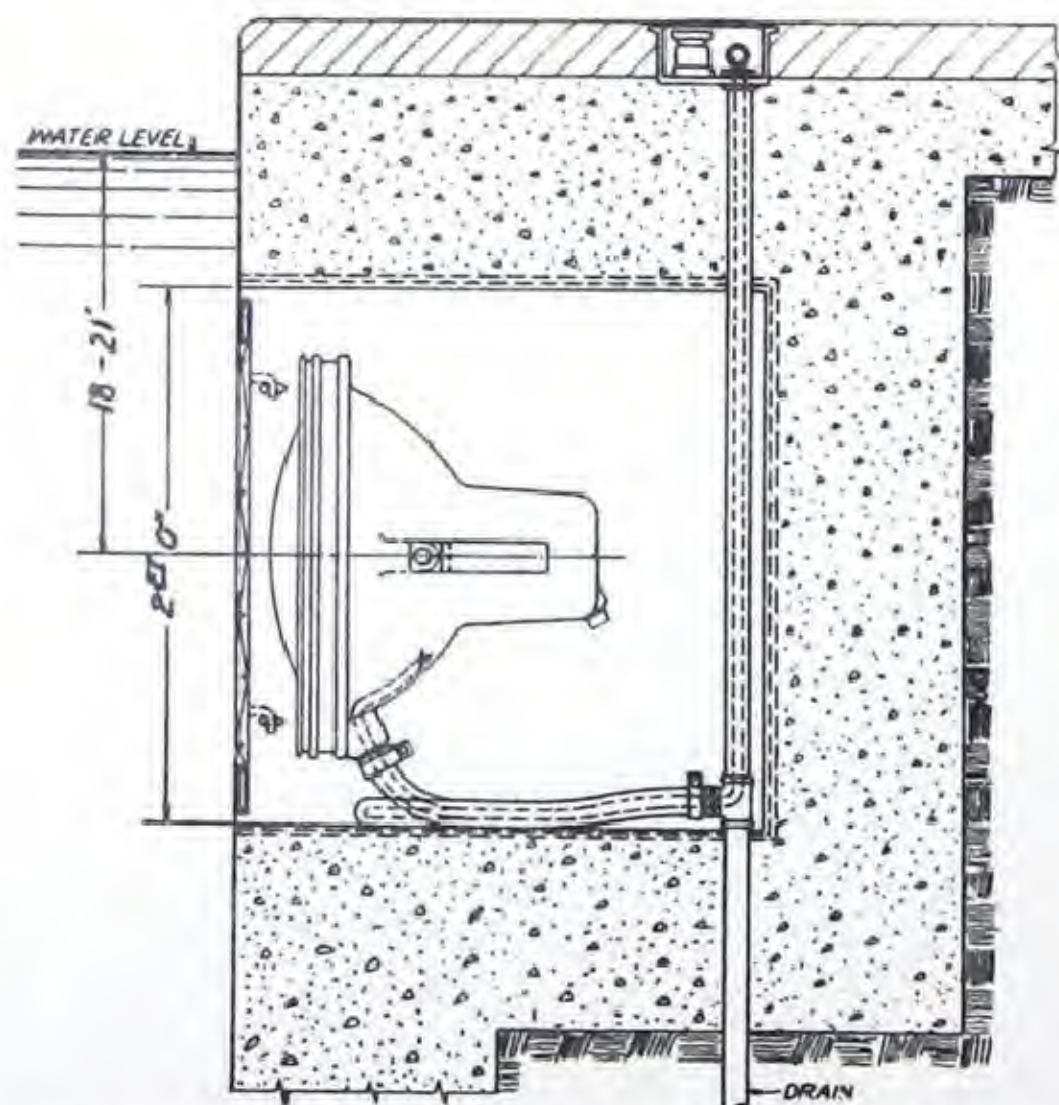
Underwater floodlighting in a swimming pool provides a novel and attractive appearance, as well as more safety for the swimmer.

Submersible floodlights that are installed in niches in the wall are well adapted for outdoor concrete pools and where installation cost must be kept at the minimum. Two sizes of floodlights are available for various size pools. The coiled flexible cable is encased in a rubber hose which makes it possible to service the floodlight without disconnecting electric or drainage connections.

The dry-niche system, with the floodlight back of a porthole, is ideal for indoor brick- or tile-finish pools. The floodlights are serviced through a manhole in the rear of the unit. Further details will be furnished upon request.



An outdoor swimming pool using wet-niche system  
Floodlights: Type AL-33 (up to 400 watts); Type AL-41 (up to 1500 watts.)



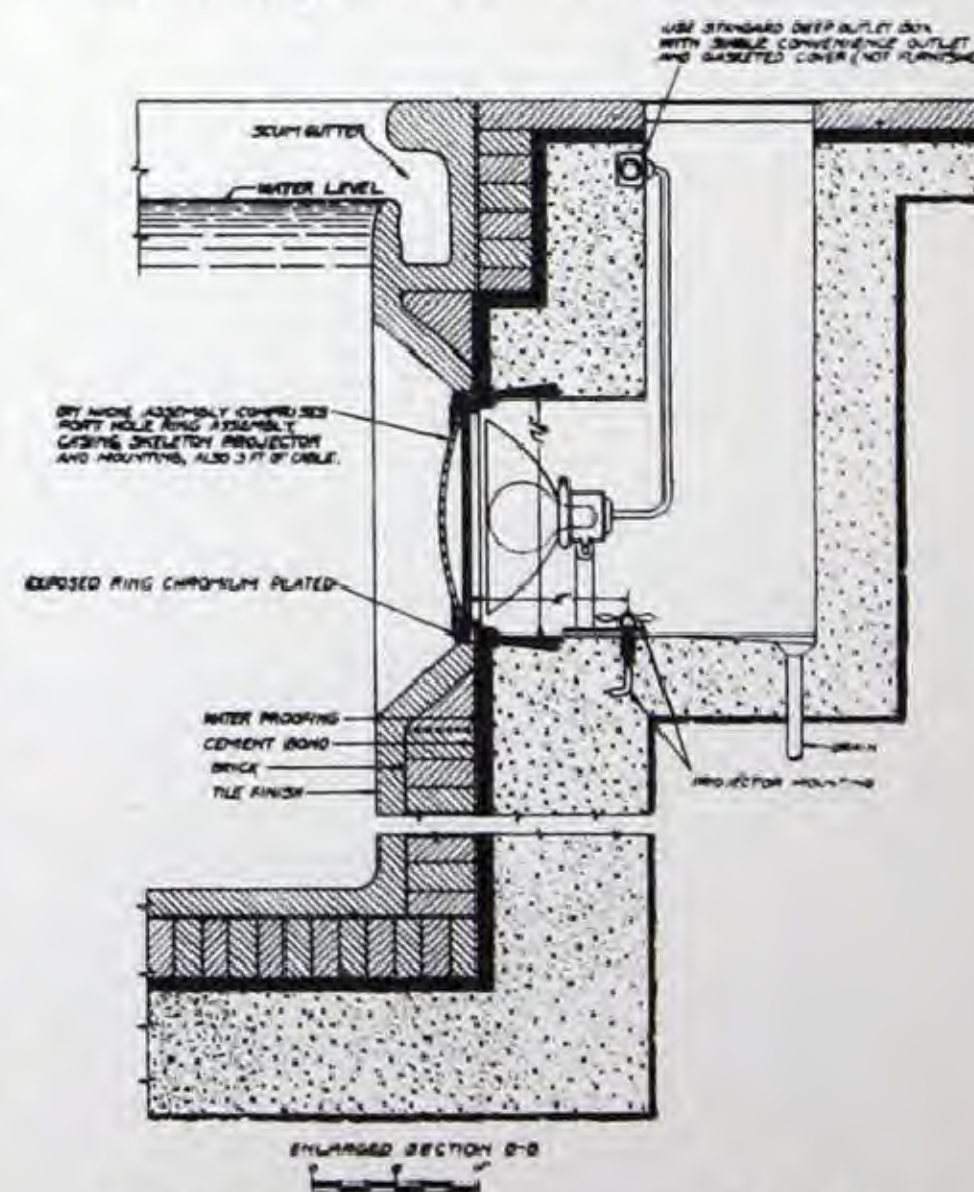
Typical wet-niche installation with Type AL-41 submersible floodlight.

Submersible floodlights are generally constructed of bronze because of the chemicals present in the water. Aluminum floodlights may be used in chemical-free fresh water with some saving in initial cost. Porthole assemblies of dry-niche units are made of similar materials.

Lenses give a horizontal spread of light, and are clamped between metal rings with rubber gaskets. Door assemblies are bolted to the floodlight casings or niche linings, the joints being rubber-gasketed.

Three-conductor cable is furnished — one for grounding casing, and two conductors for power supply.

For prices, please refer to our nearest branch.



Typical dry-niche installation with Type AL-39 underwater floodlight.



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CCA



# GENERAL ELECTRIC COMPANY

GENERAL OFFICE, SCHENECTADY, N. Y.

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## INTERNATIONAL GENERAL ELECTRIC COMPANY, INC.

SCHENECTADY, N. Y.

Executive Offices: 570 Lexington Avenue, New York City

Cable Address: "Ingenetric New York"

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AUSTRALIA: Australian General Electric Proprietary Ltd., Sydney and Melbourne	ITALY AND COLONIES: Compagnia Generale Di Eletticit�, Milan
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GERMANY: International General Electric Co., Inc., 4, Alexander Ufer, Berlin, N. W., 40	PUERTO RICO: International General Electric Company of Porto Rico, San Juan
GREAT BRITAIN AND IRELAND: International General Electric Co. of New York, Ltd., London; Associated Electrical Industries, Ltd., London	SOUTH AFRICA: South African General Electric Company, Ltd., Johannesburg and Capetown
GREECE AND COLONIES: Compagnie Francaise Thomson-Houston, Paris, France	SPAIN AND COLONIES: General Electrica Espanola, S.A., Madrid and Bilbao; Sociedad Iberica de Construcciones Electricas, Madrid and Barcelona
HOLLAND: Mijnsen & Co., Amsterdam	SWITZERLAND: International General Electric Co., Inc., Geneva; Troillet Freres, Geneva
	URUGUAY: General Electric, S.A., Montevideo
	VENEZUELA: International General Electric, S.A., Caracas and Maracaibo

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